# Clinical Reminders

## Manager Manual

***Setup & Maintenance***

Revised March 2001

Clinical Desktop Services
Office of Information
Department of Veterans Affairs

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# Revision History

| Date | Page | Change |
|---|---|---|
| | | |
| 8/2/00 | 150 | New report options with PXRM*1.5*1 for EPI |
| 8/14/00 | 4 | Description of patch PXRM*1.5*1, Hep C Initiative, EPI Initiative, and Hepatitis Extract build. |
| 8/14/00 | 45 | New Reminder Term Descriptions |
| 10/25-3/4/01 | 3 | Numerous fixes and enhancements with patch PXRM*1.5*2 are documented throughout; see the list of fixes and enhancements starting on page 3. |
| | | |
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| | | |
| | | |

**NOTE: Changes in the software since September 2000 are highlighted with a vertical bar and blue font.**

# Section I – Introduction

# Overview

Version 1.5 of Clinical Reminders contains many new useful features for clinicians, as well as improved management tools for Clinical Reminders managers.

***What are Clinical Reminders and what do they do for the Clinician?***

- Inform clinicians when a patient is due to receive clinical activity.
- Target the location/provider that best manages the resolution clinical activity.
- Identify patients a reminder "applies" to, based on **V***IST***A** patient data.
- Identify what clinical activities "resolve or satisfy" the reminder.
- Summarize pertinent patient information to aid the clinician in deciding follow-up activity.
- Allow clinicians to resolve reminders through CPRS.

The Clinical Reminders package provides interactive reminder resolution, allowing three separate processes to be linked:

- Reminder Due (Information)
- Documentation (Progress note, orders)
- Data Entry (PCE, Vitals, etc.)

This manual describes how to set up clinical reminders to provide better patient care.

**Related Documentation**

*Clinical Reminders Installation Guide*
*Clinical Reminders Clinician Guide*
*Clinical Reminders Quick Reference Card*
*CPRS Online Help*
Reminders help is included within the CPRS Help files, available from the Help menu on the CPRS GUI. Help can also be accessed on specific Reminders screens with the F1 key.

**Web Sites**

| | |
|---|---|
| Clinical Reminders Page | http://VistA.med.va.gov/reminders |
| VISN 1 PCE Forum | http://vawww.med.va.gov/visn1 |
| Pain Management Assessment Notebook | http://tspr.vista.med.va.gov/warboard/anotebk |
| VISN 15 Reminders | http://152.131.71.182/CPRSPage/VISN15REMINDERS/VISN15REMINDERS.htm |
| Mental Health Strategic Health Care Group- Clinical Reminders | http://vaww.mentalhealth.med.va.gov/clinical_reminders.htm |
| VISTA University CPRS Training | http://vaww.vistau.med.va.gov/VistaU/CPRS/ |

## New Features in Clinical Reminders V. 1.5

- Streamlines the reminder definition and the tools used to create definitions
- Includes orderable items, medications, and mental health tests as patient findings
- Includes the use of result values
- Handles complex patient cohort logic and resolution logic
- Enhances patient data displayed in the reminder Health Summary components
- Provides "Point and click" reminder resolution processing through the Notes and Consults tabs in CPRS
- Provides new tools to define dialogs for reminders that are used in "point and click" resolution processing

## Clinical Reminders Patches

### PXRM*1.5*1

Patch PXRM*1.5*1 was released in September 2000 as part of the Hepatitis C Extract combined build. It added new data to existing files in the Clinical Reminders V. 1.5 package. It also added one new file that temporarily stores data extracted from reminder evaluation processing. This temporary data can be used for review and data validation of data extracted to update the EPI database, based on three reminder definitions:

VA-HEP C RISK ASSESSMENT
VA-NATIONAL EPI LAB EXTRACT
VA-NATIONAL EPI RX EXTRACT

The data extracted for risk assessment is based on the VA-HEP C RISK ASSESSMENT reminder definition. The data extracted from laboratory is based on the VA-NATIONAL EPI LAB EXTRACT reminder, previously distributed as VA-NATIONAL EPI DB UPDATE. Both of these reminders were first released in the Clinical Reminders V.1.5 package. A new reminder definition, VA-NATIONAL EPI RX EXTRACT, is distributed in this patch for extracting pharmacy data. These three reminder definitions provide the criteria for extracting the lab, pharmacy, and risk assessment data.

This patch also added 18 new reminder terms to the REMINDER TERM file (#811.5) and two new report options for reporting extract data.
*See the Hepatitis C Extract Installation and Setup Guide for further information about PXRM*1.5*1 and the combined build for Hepatitis C.*

**PXRM*1.5*2**

Patch 2 provides many fixes in response to NOIS, as well as several enhancements to reminder and dialog definitions. Many related changes have also been made in CPRS patch 85 that affect reminder dialog resolution through CPRS. These are described below.

**1. Inquiry Option changes**

- All inquiry functions were consolidated into a standard set of print templates and routines. Previously all fields in the FINDINGS multiple of the REMINDER DEFINITION (#811.9) and REMINDER TERM (#811.5) files were printed, even if they were null. Now only non-null fields will be printed. This will provide considerably shorter output.

- A bug in the taxonomy inquiry caused the ICD Operation/Procedure to be displayed incorrectly. This problem is corrected. NOIS: CIN-0900-42457, FAR-0800-40686, HUN-1000-20744, LAH-0101-60194, PHI-0101-20893, V01-0201-N0005.

- If display of the FINDINGS multiple required more than one page, there was no page breaking. Proper page breaking is now done.

**2. Data dictionary changes**

- A number of fields in the REMINDER TAXONOMY (#811.2) and REMINDER DEFINITION (#811.9) files were made obsolete when Clinical Reminders version 1.5 was released. These fields are deleted by this patch, as well as the associated AC and C cross references in file 811.9.

- Due to the way KIDS works, security codes were not properly set on the previously existing Clinical Reminders' files when Clinical Reminders version 1.5 was installed. The security codes are set to their proper values during the post-install.

- A VERSION field was added to CLINICAL REMINDER PARAMETERS file (#800) to store the current version number of the package. This patch will initially set the VERSION field to "1.5."

- The CONDITION field in the REMINDER TERM (#811.5) and REMINDER DEFINITION (#811.9) files was moved to a separate node. It now has a maximum length of 225 characters instead of 52. Also the new field CONDITION CASE SENSITIVE was added to the FINDINGS multiple in the same two files. When this has a value of "NO," the condition evaluation will not be case-sensitive. The default is "YES."

- The new field EFFECTIVE DATE was added to the FINDINGS multiple in the REMINDER TERM (#811.5) and REMINDER DEFINITION (#811.9) files. A finding with a date older than the EFFECTIVE DATE will be treated as false. An updated version of the VA-HEP C RISK ASSESSMENT reminder definition is included. In this definition the EFFECTIVE PERIOD of 2Y is replaced by an EFFECTIVE DATE of October 1, 1998.

## 3. Reminder Evaluation/Clinical Maintenance changes

- The Computed Finding VA-RACE was not returning the patient's race correctly. This was fixed. NOIS: CTX-0900-70341, WPB-0700-30774.

- Inpatient medications were not being found for drug findings. This was fixed. Drug finding evaluations were made more efficient. This also requires Outpatient Pharmacy patch PSO*7*54. NOIS: BRX-0900-12529.

- The code that calls the TIU object expansion was passing a pointer to the INSTITUTION file (#4) instead of the required HOSPITAL LOCATION file (#44). It was fixed. NOIS: FGH-0700-32788.

- When there was no match between any of the baseline age ranges and the patient's age, making the reminder N/A due to age, the output was still appearing in the Clinical Maintenance component even if IGNORE ON N/A was set. This was fixed.

- Locking of expanded taxonomies was made more robust. It no longer generates an error when it fails to get a lock. It now produces a "no lock" message. NOIS: CHA-0900-30869.

- A display of Problem List priorities (acute or chronic) was added in the Clinical Maintenance output. NOIS: UNY-0900-12325

- The wildcard form of IGNORE ON N/A was not working correctly when the reminder was N/A because the PATIENT COHORT LOGIC evaluated to false. This was fixed. NOIS: HOU-1100-72053

- A term with more than one drug finding was not always working correctly. This was fixed. NOIS: SAG-1200-40405

- A change was made in the calculation of the resolution date for complex resolutions. Previously, the most recent date was used. Now, if two findings are ANDed, the oldest date is used. If two findings are ORed, the most recent date is used. If the logic is complex, then the date is determined by using the above rules. NOIS: HIN-0900-40246, WRJ-0101-11399.

- When a health factor without a category, which is a required field, was encountered during the reminder evaluation, it caused a null subscript error. Now when a health factor without a category is encountered, a warning message will be sent to the user and the reminders mailgroup (if the mailgroup is defined). The health factor will be ignored in the reminder evaluation and the null subscript errors will be eliminated. NOIS: UNY-0900-10369

- When set, the IGNORE ON N/A field was suppressing the Summary component output in addition to the Maintenance component. It should suppress only the Maintenance component output. It now works correctly.

- The CONDITION field can now be used with all finding types. Previously, all drug findings, radiology procedures, and taxonomies would not allow the use of CONDITION because there is no value for these findings. These findings still do not return a value to test against, but there is now a standard set of variables that can be used in all CONDITIONS. These variables are:

  PXRMAGE - patient's age
  PXRMDOB - patient's date of birth in FileMan format
  PXRMRACE - patient's race (this is the text from the RACE file)
  PXRMSEX - patient's sex, in the format M^MALE or F^FEMALE

- When there was no reminder frequency, the error message "Patient does not meet any age criteria" was displayed instead of "There is no reminder frequency." NOIS: MAC-0201-61450

- For a historical encounter, the internal entry number of the Institution file was displayed instead of the station number. A change was made to display the station number. NOIS: BUT-0201-22423.

- The format of the "Applicable" header, which groups together patients found in the patient cohort logic, was changed because it was causing some confusion. An example of how it now reads is:

  Applicable: Due every 1 year of 50 and older within cohort.

  The words "within cohort" were added to emphasize that this age range only applies to those patients in the cohort. If the reminder is N/A, the header is suppressed.

**4. Reminder List Option changes**

- When doing a Reminder List, typing a ^ at a prompt caused an undefined error instead of taking the user to the previous prompt. This was fixed. NOIS: HUN-0700-21914, HUN-1100-22185, SFC-1100-60475.

**5. Reminder Dialog changes**

- Dialog elements with sequence numbers >100 created by generating dialogs for reminders with >20 findings could not be edited unless the sequence number was first changed to <100. This is corrected and additional validation is also included to prevent duplicate sequence numbers being entered. NOIS: MIA-1100-32057, WPB-0800-30571.

- A dialog group could be entered as a dialog element within itself. The result was that stack errors were generated when running the reminder dialog containing the group multiple. The REMINDER DIALOG file (#801.41) is corrected so that a dialog group may no longer be entered as a dialog element within itself. NOIS: SLC-0800-52045 and WAS-0700-21656

- Autogenerated dialog elements for contraindicated immunizations included an additional prompt - PXRM VISIT DATE - that was not displayed in the reminder dialog. This is corrected so that the PXRM VISIT DATE prompt displays in the reminder dialog. NOIS: HUN-1000-21282

- Dialog elements for exams occasionally displayed a code value instead of the exam name in the encounter window of the reminder dialog. This is corrected to show the exam name. NOIS: SPO-1000-52529

- Editing dialog groups within the CV option of reminder dialogs now uses the same editor as is used for reminder dialogs. Dialog group elements may be edited, copied/renamed, or deleted. It is no longer necessary to build component dialog elements before building the dialog group. Elements may be created from within the dialog group screen. NOIS: WIC-1000-42229

- A problem was reported where the reminder categories in CPRS GUI display the wrong reminders. This is corrected. NOIS: SDC-1000-61815

- If a reminder taxonomy was created after the installation of the Clinical Reminders package, selectable codes were not generated for the taxonomy dialog. This is changed so that taxonomy dialog edit will auto-create the selectable codes if none exist. NOIS: CHA-1100-30888

- If multiple web sites were entered for a reminder and the first 30 characters of the URLs were the same, only the first of the web sites would display in the "reference information" section of the GUI. This is corrected. NOIS: MAC-1100-60409

- The GROUP ENTRY field of the REMINDER DIALOG file (#801.41) used for dialog groups is extended to allow a new code:

  3 None or One Selection

- The forced value "PXRM REPEAT CONTRAINDICATED" released with the reminder package had the default value incorrectly set to "yes." As a result, the contraindicted field in PCE was not being updated. This is corrected by setting the default value to 1.

- Dialog copy of additional prompts now allows the prompt to be changed into a forced value if the prompt updates PCE or Vitals data. NOIS HVH-1200-11111.

- Dialog edit screens now return to the selection screen from which the edit was initiated. NOIS: PUG-1200-52077

- CPRS Lookup Categories now display sub-categories in display order and show the display sequence number. NOIS: PUG-0101-50004

- The edit template for dialog groups (PXRM EDIT GROUP) now allows additional prompts for a group level finding to be excluded from progress note text. NOIS: WAS-0700-21999

6. Reminder Reports:
   - The Reminders Due Report displays "See below" if future appointments exist outside of the selected location and the "Display All Future Appointments" option is being used. NOIS: FAR-1000-42813

**Related NOIS**

BRX-0900-12529
BUT-0201-22423
CHA-0900-30869
CHA-1100-30888
CIN-0900-42457
CTX-0900-70341
EKH-1000-42980
FAR-0800-40686
FAR-1000-42813
FGH-0700-32788
HIN-0900-40246
HOU-1100-72053
HUN-0700-21914
HUN-1000-20744
HUN-1000-21282
HUN-1000-22185
HVH-1200-11111
LAH-0101-60194
MAC-1100-60338
MAC-1100-60409
MAC-0201-61450
MIA-1100-32057
PHI-0101-20893
PUG-1200-52077
PUG-0101-50004
SAG-1200-40405
SDC-1000-61815
SFC-1100-60475
SLC-0800-52045
SPO-1000-52529
UNY-0900-10369
UNY-0900-12325
V01-0201-N0005
WAS-0700-21656
WAS-0700-21999
WIC-1000-42229
WPB-0700-30744
WPB-0800-30571
WRJ-0101-11399

### CPRS GUI v15 Reminders Enhancements

Many changes have been made to Reminder Dialog Resolution in CPRS v15 that will make it easier for clinicians to use the dialogs to resolve reminders in Notes or Summaries. The new templating features give Reminders managers more power and flexibility for setting up different kinds of dialog screens for resolving reminders. These will be described in more detail in a later update of this manual – when CPRS v15 is released.

For more information about template functionality, see the demonstration on the Software Development & Design (SD&D) Clinician Desktop Project Notebook page:
http://tspr.vista.med.va.gov/warboard/ProjectDocs/ClinD_Maint/CPRSTemplating.zip

### PXRM*1.5*3 Reminder Expanded Taxonomy Delete

The EXPANDED TAXONOMIES file (#811.3) may have been rebuilt incorrectly during installation of the DRG Grouper Version 18.0 software, because the install of the ICD package deleted the globals for ICD Operation/Procedure (#80) and ICD Diagnosis (#80.1). If a reminder evaluation using a taxonomy was performed at that time, the EXPANDED TAXONOMY list for that taxonomy would be rebuilt with no codes or with an incomplete set. The impact of this is that reminders that include the taxonomy as a finding item don't evaluate correctly.

This patch must be loaded if the DRG Grouper Version 18.0 software has already been loaded. If the DRG Grouper Version 18.0 software has not yet been loaded, this patch should be loaded *immediately* after the DRG Grouper globals have been loaded.

The EXPANDED TAXONOMIES file is rebuilt whenever a taxonomy is edited or one of the source files has changed since the expansion was last done. The source files are ICD0, ICD9, and ICPT.

The post-install routine in this patch deletes the entries in the EXPANDED TAXONOMIES file (811.3). The entries in the EXPANDED TAXONOMIES file will be added as reminders using the codes are evaluated, either through the use of health summaries or on the CPRS coversheet.

### Related NOIS

```
HUN-1200-20319
PAL-1200-60270
WAS-1200-20463
WIM-1200-20088
```

## Clinical Reminders and CPRS

See the *Clinical Reminders Clinician Guide* for more detailed descriptions of processing reminders in CPRS.

Clinicians now have many more interactive capabilities in using Clinical Reminders through the CPRS GUI. They first view reminders on the Cover Sheet. A snapshot view of procedures or actions that are due can be seen. Clinicians can take action on reminders from the Notes and Consults tabs. They can easily record information that "resolves" the reminder by checking off one of many resolution choices.

## New Clinical Reminder Files Supporting GUI Processing

To enable the above capabilities, the Clinical Reminders package has been redesigned and enhanced with new files and parameters. These require setup by coordinators and technical staff at the medical centers, to allow maximum flexibility and local applicability.

### *Reminder Categories*

- Allows flexible grouping of reminders
- Provides lists of reminders for selection based on a new Reminder Category parameter
- Useful for reporting

### *Reminder Finding Parameters*

- Used to autogenerate reminder dialog for finding items in a reminder definition
- Allows sites to define which default parameters to use for each finding type and resolution status, such as prefix and suffix text to use to create sentences for the progress note
- Additional prompts to ask when the sentence is checked off

### *Reminder Dialog*

- Stores the reminder dialog set that is used by the CPRS GUI to process a reminder
- Stores dialog sentences for finding items from the reminder definition, and their additional prompts
- Populated by autogeneration tools for a reminder
- Allows coordinators to define their own dialogs and modify autogenerated dialog entries for reminder resolution.

**Clinical Reminder Statuses**

When you look at the reminder output in CPRS and in Health Summaries, you will see a reminder status. The status is determined by evaluation of the PATIENT COHORT LOGIC and/or RESOLUTION LOGIC. These logic strings in turn depend on the other fields in the reminder definition, which are stored in the REMINDER DEFINITION file #811.9. The descriptions in the table below explain what each of the possible statuses mean.

| Status | Description |
|---|---|
| DONE | When the final frequency for a reminder is 99Y (99 years), it is done once in a lifetime. When reminders with this frequency are resolved, they have the special status of DONE. |
| DUE NOW | There are two conditions that can make a reminder DUE NOW. The first is when the reminder has never been resolved in the past. The second is when the reminder has been resolved in the past but the amount of time specified by the final REMINDER FREQUENCY has been met or exceeded. For example, if the reminder was last resolved 18 months ago and the frequency is one year, the reminder is DUE NOW. If the frequency was 2 years, the status would be RESOLVED. |
| DUE SOON | The field DO IN ADVANCE TIME FRAME is used to let a reminder become due earlier than the date determined, by adding the frequency to the date when the reminder was last resolved. For example, if the frequency is 1Y (one year) and the DO IN ADVANCE TIME FRAME is 1M (one month), the reminder would have a status of DUE SOON beginning 11 months after it was last resolved. After one year has passed, the status would be DUE. |
| ERROR | This status is returned when there is an error that prevents the reminder from being properly evaluated. Depending upon how a site chooses to set things up, a MailMan message containing details of the error will be sent either to a mailgroup or the user. The error will also be put into the error trap. |
| N/A | A reminder is N/A (non-applicable) if the patient is not in the cohort or group of patients to which this reminder applies. The PATIENT COHORT LOGIC provides a precise description of the cohort. Examples of Findings that can be used to determine the cohort include sex, age, and diagnosis. The remaining resolution statuses apply only to reminders that are applicable. |
| NEVER | This status applies only to reminders that are resolved by an immunization. Immunizations can be marked as contraindicated in the V IMMUNIZATION file. When this is the case, the reminder will have the status of NEVER. |
| RESOLVED | A reminder is given a status of RESOLVED when all the criteria in the RESOLUTION LOGIC have been met and the amount of time specified by the reminder frequency has not passed. The criteria can be simple, such as having an immunization, or complex, such as an order for an inhaler and inhaler use education. |

# Section II – Implementing Clinical Reminders

## Introduction

Implementing Clinical Reminders at your site is an ongoing process. Clinical and management groups need to evaluate the needs of your site. They should review and prioritize the clinical guidelines that need to be implemented at your site. The clinical reminders your site uses will probably change over time. For example, a new clinical guideline may require one or more new clinical reminders. When a reminder becomes outdated, it may be inactivated.

- Clinical Reminders Version 1.5 must be installed at your site.

- The basic **V***IST***A** infrastructure needs to be in place. Clinical Reminders searches for information relevant to the patient in data created by other **V***IST***A** packages. These packages include Mental Health, Lab, Order Entry, Patient Care Encounter (PCE), Pharmacy, PIMS, Radiology, and Vitals. The reminders can be displayed using the **V***IST***A** packages Health Summary, AICS, or CPRS.

- Determine the needs of your site – review and prioritize the clinical guidelines that need to be implemented at your site

- Once you have determined there is a need for a particular clinical reminder, create and test a reminder definition.

- To use a reminder, you must set it up to be available in the appropriate application. You may want it on a health summary for a specific clinic or on the CPRS GUI cover sheet for particular users. Several parameters must be set for those applications.

- If reminders will be resolved through Progress or Consults Notes in CPRS, you will need to create dialogs and link them to reminders.

# Chapter 1: Defining Clinical Reminders

## Overview

The Reminder Definition file has been simplified in Clinical Reminders V. 1.5, so that the target finding, health factor, computed findings and taxonomies are now all grouped together under a single "findings" multiple. Existing reminders are converted to the new format automatically when Version 1.5 is installed.

The reminder edit process has been modified to display all existing findings and then allow selection of findings by finding type. For existing reminders, it is no longer necessary to step through all the reminder definition to make a change to an individual field. For the selected reminder, a sub-menu is displayed that allows selection of specific fields in the reminder definition for editing.

## Defining a Working Clinical Reminder

There are two parts to creating a working clinical reminder.

- *Reminder definition:* This describes the patients the reminder applies to, how often it is given, and what resolves or satisfies the reminder.

- *Process Issues:* The process issues include who will use the reminder and how the data will be captured. The process issues are extremely important; if they are not worked out, the reminder will never function as intended, even if the definition is correct.

## Steps to Define a Working Reminder

These are the basic steps for defining a reminder. More detailed instructions for creating reminders and dialogs are provided in chapters that follow.

1. Write the reminder definition in a narrative form that clearly describes what you want the reminder to do.

   Use the reminder narrative to identify patient data you need and how to capture it. Determine what characteristics the reminder will have (make a list). Which patients will the reminder be applicable for: age ranges, sex, diagnoses, etc. What satisfies the reminder and what makes it not applicable: diagnoses, lab results, x-rays, education, etc.

   ***Reminders provide answers to the basic questions:***
   - WHO (findings and patient cohort logic)
   - WHAT resolves the reminder (findings and resolution logic)
   - WHAT supporting information (findings that are not patient cohort and not resolution logic)
   - WHEN (frequency)

- WHERE this reminder will likely be resolved (location/provider)

Example: Diabetic Eye Exam

*Narrative Format*
Diabetic patients should have a diabetic eye exam done yearly.

2. Review existing reminders to see if there is an existing reminder that is close that you can copy and modify.
   *List Reminder Definition*s, Reminder Management Menu
   *Inquire about a Reminder Definition*, Reminder Management Menu

3. Copy the existing reminder and edit it to meet your needs, or define a new reminder.
   *Copy Reminder Definition* or *Add/Edit Reminder Definition*, Reminder Management Menu

4. Create new findings if they are required. For example, you may need exams or health factors.
   *Option: PCE Table Maintenance* on Other Supporting Menus

5. Test your reminder definition by evaluating the reminder for test patients. You should have patients who are in the cohort and who are not in the cohort. For patients who are in the cohort, you should have some who have the reminder resolved and some who do not.
   *Options*: *Test Reminder* on the Reminder Management Menu , Health Summary Coordinator's Menu; Clinical Maintenance in CPRS;

6. Create a reminder dialog (following instructions in the Reminder Dialog section of this manual), if desired, for resolving the reminder in CPRS.

7. Once you are certain the reminder works as intended, set it up in one or more of the following applications:
   a. Add it to a health summary
   b. Add it to an encounter form
   c. Activate CPRS parameters:
      - Add it to the CPRS GUI Cover Sheet Reminders List
      - Add it to CPRS Lookup Categories
      - Activate the GUI Resolution parameter
      - Activate the Mental Health dialog resolution parameter

   *Options*: Health Summary Coordinator's Menu, CPRS Reminder Configuration menu

**Steps 1 - 3 are described in this chapter. Steps 5 – 7 are described in succeeding chapters.**

*See Appendix A for a checklist and an example of defining a reminder and creating a dialog.*

## Detailed Steps To Define A Working Reminder

The following pages show examples of performing the steps for defining a reminder using the options on the Reminder Manager menu.

### Step 1. Write the definition in narrative format.

Diabetic patients should have a diabetic eye exam done yearly.

### Step 2. Review existing reminders, using the List Reminder Definitions and Inquire About Reminder Item options.

### List Reminder Definitions (RL)

This option prints a summary of reminder definitions. You can limit the list by several criteria: all reminders, all national reminders, all local reminders, print name, or .01 name.

### Example: List Reminder Definitions by National Reminders

NOTE: All the reminder definitions between the first one and Diabetic Eye Exam are deleted from this example, for brevity's sake.

```
Select Reminder Management Option: RL  List Reminder Definitions
List all reminders? Y// NO
List all local reminders? Y// NO
List only reminders starting with (prefix)? VA-// <Enter>
List Active (A), Inactive (I), Both (B)? B//<Enter> oth

Sort list by Name (N), Print Name (P)? N//<Enter> ame (.01)

A reminder list will be created using the following criteria:
  List all reminders?  NO
  List all local reminders?  NO
  List only reminders starting with (prefix)?  VA-
  List Active (A), Inactive (I), Both (B)?  Both
  Sort list by Name (N), Print Name (P)?  Name (.01)

Is this correct? Y// <Enter>ES
DEVICE: <Enter>  ANYWHERE    Right Margin: 80// <Enter>
REMINDER DEFINITION LIST                      MAR  2,2000  10:21    PAGE 1
------------------------------------------------------------------------------
---------------------------------
Name:        VA-*BREAST CANCER SCREEN
Print Name:  Breast Cancer Screen

Priority:

Reminder Description:
    Mammogram should be given every 2 years to female patients, ages 50-69.
```

*List Reminder Definitions, cont'd*

```
    The "VA-*Breast Cancer Screen" reminder is based on the following "Breast
    Cancer Detection" guidelines specified in the VHA HANDBOOK 1101.8,
    APPENDIX A.

         Target Condition: Early detection of breast cancer.

         Target Group:     All women ages 50-69.

         Recommendation:   All women ages 50-69 should receive a mammogram
                           every two years.

         Goals for FY2000: At least 60% of women ages 50-69 have received a
                           mammogram within the preceding two years.

Findings:
  Finding Item:  VA-MAMMOGRAM/SCREEN (FI(1)=TX(16))
  Finding Item:  INACTIVATE BREAST CANCER SCREE (FI(2)=HF(42))
  Finding Item:  ACTIVATE BREAST CANCER SCREEN (FI(3)=HF(43))

Default PATIENT COHORT LOGIC to see if the Reminder applies to a patient:
     (SEX)&(AGE)&'FI(2)

Expanded Patient Cohort Logic:
     (SEX)&(AGE)&'FI(INACTIVATE BREAST CANCER SCREEN)

Default RESOLUTION LOGIC defines findings which can resolve the Reminder:
     FI(1)

Expanded Resolution Logic:
      FI(VA-MAMMOGRAM/SCREEN)
-----------------------------------
.
.
.
-----------------------------------
Name:        VA-DIABETIC EYE EXAM
Print Name:  Diabetic Eye Exam
Priority:
Reminder Description:
    Patients with the VA-DIABETES taxonomy should have a diabetic eye exam
    done yearly.
Findings:
  Finding Item:  DIABETIC EYE EXAM (FI(1)=EX(3))
  Finding Item:  VA-DIABETES (FI(2)=TX(28))
Default PATIENT COHORT LOGIC to see if the Reminder applies to a patient:
     (SEX)&(AGE)&FI(2)
Expanded Patient Cohort Logic:
     (SEX)&(AGE)&FI(VA-DIABETES)
Default RESOLUTION LOGIC defines findings that resolve the Reminder:
     FI(1)
Expanded Resolution Logic:
     FI(DIABETIC EYE EXAM)
^
```

### Inquire About Reminder Item (RI)

After reviewing reminder definitions with the List Reminder Definitions, you can select a specific reminder to see all the details.

NOTE: As a result of changes in Patch 2, only the fields in the findings multiple that have entries (non-null) will be printed.

```
Select Reminder Management Option: RI  Inquire about Reminder Definition
Select Reminder Definition: VA-DIABETIC EYE EXAM
DEVICE: <Enter>  ANYWHERE    Right Margin: 80// <Enter>

REMINDER DEFINITION INQUIRY                     Feb 22, 2001 11:18:56 am  Page 1

-------------------------------------------------------------------------------

VA-DIABETIC EYE EXAM               No.  17
-----------------------------------------

Print Name:                    Diabetic Eye Exam

Related VA-* Reminder:

Reminder Dialog:

Priority:

Reminder Description:
    Patients with the VA-DIABETES taxonomy should have a diabetic eye exam
    done yearly.

Technical Description:
    This reminder is based on the Diabetic Eye Exam reminder from the New
    York VAMC which was designed to meet the guidelines defined by the PACT
    panel.  Additional input came from the Saginaw VAMC.


Baseline Frequency:

      Do In Advance Time Frame:  Do if DUE within 1 month
                  Sex Specific:
                Ignore on N/A:
       Frequency for Age Range:  1Y
                   Match Text:
                No Match Text:

Findings:

                Finding Item: DIABETIC EYE EXAM  (FI(1)=EX(3))
                Finding Type: EXAM
      Use in Resolution Logic: OR
```

*Inquire about Reminder Definition, cont'd*

```
                 Finding Item: VA-DIABETES  (FI(2)=TX(28))
                 Finding Type: REMINDER TAXONOMY
                   Found Text: Diabetic eye exam required annually for all
                                diabetic patients.  with HTN.
              Not Found Text: No history of diabetes on file.
  Use in Patient Cohort Logic: AND
General Patient Cohort Found Text:

General Patient Cohort Not Found Text:

General Resolution Found Text:

General Resolution Not Found Text:

Default PATIENT COHORT LOGIC to see if the Reminder applies to a patient:
     (SEX)&(AGE)&FI(2)

Expanded Patient Cohort Logic:
     (SEX)&(AGE)&FI(VA-DIABETES)
Default RESOLUTION LOGIC defines findings that resolve the Reminder:
     FI(1)
Expanded Resolution Logic:
     FI(DIABETIC EYE EXAM)

Web Sites:
```

**Step 3. Copy the national reminder you wish to use as a basis for your local reminder, and edit it as necessary. Use either the Copy Reminder Definition or Add/Edit Reminder Definition option.**

**Copy Reminder Definition (RC)**

This option allows you to copy an existing reminder definition into a new reminder definition in the REMINDER DEFINITION file (#811.9). The original reminder definition to be copied is selected first. You will then be prompted for a new unique name. Once a new name is defined for the new reminder definition, the new reminder definition can be edited.

Several predefined reminder definitions were distributed with the PCE package, based on the Ambulatory Care EP Preventative Health Maintenance Guidelines. Nationally distributed reminder definitions items all have a "VA-" prefix. VA- for Ambulatory Care EP reminders and VA-* for National Center for Health Promotion reminders.

Sites may change anything in a local reminder definition to meet their needs. Findings at each site may require modification to represent local use of clinical data. Multiple findings can be entered.

NOTE: The reminder edit process has been modified so that all existing findings are displayed first and then you can select findings by finding type. For the selected reminder, a sub-menu is displayed that allows selection of specific fields in the reminder definition for edit.

### Copy Reminder Definition Example

NOTE: See page 24 for descriptions of each of the prompts (fields).

```
Select Reminder Management Option: RC  Copy Reminder Definition
Select the reminder item to copy: VA-DI
     1   VA-DIABETIC EYE EXAM
     2   VA-DIABETIC FOOT CARE ED.
     3   VA-DIABETIC FOOT EXAM
     4   VA-DIGITAL RECTAL (PROSTATE) EXAM
CHOOSE 1-4: 1  VA-DIABETIC EYE EXAM
PLEASE ENTER A UNIQUE NAME: JG-DIABETIC EYE EXAM

The original reminder VA-DIABETIC EYE EXAM has been copied into JG-DIABETIC EYE
EXAM.
Do you want to edit it now? YES
     Select one of the following:
          A         All reminder details
          G         General
          B         Baseline Frequency
          F         Findings
          L         Logic
          D         Reminder Dialog
          W         Web Addresses
Select section to edit: All reminder details
NAME: JG-DIABETIC EYE EXAM  Replace
PRINT NAME: Diabetic Eye Exam// <Enter>
RELATED REMINDER GUIDELINE: <Enter>
INACTIVE FLAG: <Enter>
REMINDER DESCRIPTION:
  1>Patients with the VA-DIABETES taxonomy should have a diabetic eye exam
  2>done yearly.
EDIT Option: <Enter>

TECHNICAL DESCRIPTION:
  1>This reminder is based on the Diabetic Eye Exam reminder from the New
  2>York VAMC which was designed to meet the guidelines defined by the PACT
  3>panel.  Additional input came from the Saginaw VAMC.
EDIT Option: <Enter>
PRIORITY: 3
Baseline Frequency
DO IN ADVANCE TIME FRAME: 1M// <Enter>
SEX SPECIFIC: <Enter>
IGNORE ON N/A: <Enter>

Baseline frequency age range set
Select REMINDER FREQUENCY: 0Y// <Enter>
  REMINDER FREQUENCY: 0Y// <Enter>
  MINIMUM AGE: <Enter>
  MAXIMUM AGE: <Enter>
  AGE MATCH TEXT:
  1><Enter>
  AGE NO MATCH TEXT:
  1><Enter>
```

*Copy Reminder Definition, cont'd*

```
Select REMINDER FREQUENCY: <Enter>

Findings

Choose from:
EX      DIABETIC EYE EXAM
TX      VA-DIABETES

Select FINDING: TX.VA-DIABETES

     Searching for a REMINDER TAXONOMY, (pointed-to by FINDING ITEM)
  VA-DIABETES     Diabetic diagnosis codes
         ...OK? Yes// <Enter>  (Yes)

FINDING ITEM: VA-DIABETES// <Enter>
MINIMUM AGE: <Enter>
MAXIMUM AGE: <Enter>
REMINDER FREQUENCY: 1Y// <Enter>
RANK FREQUENCY: <Enter>
USE IN RESOLUTION LOGIC: <Enter>
USE IN PATIENT COHORT LOGIC: AND// <Enter>
EFFECTIVE PERIOD: <Enter>
EFFECTIVE DATE: <Enter>
USE INACTIVE PROBLEMS: <Enter>
CONDITION: <Enter>
CONDITION CASE SENSITIVE: <Enter>
FOUND TEXT:
  1>Diabetic eye exam required annually for all diabetic patients.
  2>with HTN.
EDIT Option: <Enter>
NOT FOUND TEXT:
  1>No history of diabetes on file.
EDIT Option: <Enter>
Select FINDING: <Enter>

Patient Cohort and Resolution Logic
CUSTOMIZED PATIENT COHORT LOGIC (OPTIONAL): (SEX)&(AGE)&FI(SLC DIABETES)GENERAL
PATIENT COHORT FOUND TEXT:
  1><Enter>
GENERAL PATIENT COHORT NOT FOUND TEXT:
  1><Enter>
CUSTOMIZED RESOLUTION LOGIC (OPTIONAL): <Enter>
GENERAL RESOLUTION FOUND TEXT:
  1><Enter>
GENERAL RESOLUTION NOT FOUND TEXT:
  1><Enter>

Reminder Dialog
LINKED REMINDER DIALOG: <Enter>
Web Addresses for Reminder Information
Select URL: <Enter>
```

**NOTE**: When editing findings in a reminder definition or term, you can save time by giving an exact specification of the name of the finding by using the abbreviation, followed by a period, then the finding name. This tells FileMan exactly where to find it and avoids long searches. See page 27 for a list of abbreviations for findings types.

```
     Select one of the following:
          A         All reminder details
          G         General
          B         Baseline Frequency
          F         Findings
          L         Logic
          D         Reminder Dialog
          W         Web Addresses

Select section to edit: <Enter>
Select Reminder Management Option: <Enter>
```

**Add/Edit Reminder Definition**

You can define a reminder through this option or through the Copy Reminder Definition, as described on preceding pages.

The reminder edit process has been modified so that all existing findings are displayed first and then you can select findings by finding type. For existing reminders, it is no longer necessary to step through all the reminder definition to make a change to an individual field. For the selected reminder, a sub-menu is displayed that allows selection of specific fields in the reminder definition for edit.

**Editing part of the reminder definition.**

**This is an example of editing Logic.**

```
Select Reminder Management Option: RE  Add/Edit Reminder Definition
Select Reminder Definition: JG-DIABETIC EYE EXAM
     Select one of the following:
          A         All reminder details
          G         General
          B         Baseline Frequency
          F         Findings
          L         Logic
          D         Reminder Dialog
          W         Web Addresses

Select section to edit: Logic

Patient Cohort and Resolution Logic
CUSTOMIZED PATIENT COHORT LOGIC (OPTIONAL): (SEX)&(AGE)&FI(SLC
DIABETES)
GENERAL PATIENT COHORT FOUND TEXT:
  1> <Enter>
GENERAL PATIENT COHORT NOT FOUND TEXT:
  1><Enter>
CUSTOMIZED RESOLUTION LOGIC (OPTIONAL): FI(DIABETIC EYE EXAM)
GENERAL RESOLUTION FOUND TEXT:
  1><Enter>
GENERAL RESOLUTION NOT FOUND TEXT:
  1><Enter>
```

## Reminder Definition Fields

| Name | Description |
|---|---|
| NAME | This field is the name of a clinical reminder definition. Nationally distributed reminder definition names are prefixed with "VA-". The VA-prefixed reminder definitions cannot be altered by a site, but may be inactivated so they will not be selectable. |
| PRINT NAME | This is the name that is used when the results of a reminder evaluation are displayed. |
| RELATED REMINDER GUIDELINE | If this local reminder replaces an NCHP related reminder, then identify the related NCHP reminder here. The National Center for Health Promotion (NCHP) has identified reminders that must be tracked at local facilities and reported on to Congress. The reminders that address the NCHP reminders are prefixed with "VA-*". These reminders may be used in the Health Summary Components, or replaced by a local reminder that also satisfies the NCHP guideline. |
| INACTIVE FLAG | Reminders that are inactive will not be evaluated. The Clinical Maintenance component will return a message stating the reminder is inactive and the date when it was made inactive.<br>Other applications that use reminders may use this flag to determine if a reminder can be selected for inclusion. |
| REMINDER DESCRIPTION | This is a description of the clinical purpose of the reminder. |
| TECHNICAL DESCRIPTION | This is a description of how the reminder works. |
| PRIORITY | The reminder priority is used by the CPRS GUI for sorting purposes. |
| DO IN ADVANCE TIME FRAME | This field is used to let a reminder become due earlier than the date determined by adding the frequency to the date when the reminder was last resolved. For example, if the frequency is 1Y (one year) and the DO IN ADVANCE TIME FRAME is 1M (one month) the reminder would have a status of "DUE SOON" 11 months after it was last resolved. After one year has passed the STATUS would be "DUE." |
| SEX SPECIFIC | This field is used to make a reminder sex-specific. If an "F" is entered, the reminder applies only to females. If an "M" is entered, the reminder applies only to males. If it is left blank, then the reminder is applicable to either sex. |
| IGNORE ON N/A | This field allows the user to stop reminders from being printed in the Clinical Maintenance component if the reminder is N/A. This is a free- text field that can contain any combination of the following codes:<br>Code Description<br>A N/A due to not meeting age criteria.<br>I N/A due to inactive reminder.<br>R N/A due to the wrong race.<br>S N/A due to the wrong sex.<br>* N/A for any reason. |

## *Reminder Definition Fields, cont'd*

| Name | Description |
|---|---|
| FREQUENCY AGE RANGE SET | The Frequency Age Range set is a multiple that allows you to define different frequencies for different non-overlapping age ranges. The fields in this multiple are:<br><br>REMINDER FREQUENCY:<br>This is the frequency to give the reminder. It is input as nD, nM, or nY, where D stands for days, M for months, Y for years, and n is a number. Thus, for a reminder that is to be given once a year, the values 365D, 12M, or 1Y would all work. If a reminder is only to be given once in a lifetime, use a frequency of 99Y.<br><br>MINIMUM AGE:<br>This field specifies the minimum age for defining an age range associated with a frequency. Leave it blank if there is no minimum age.<br><br>MAXIMUM AGE:<br>This field specifies the maximum age for defining an age range associated with a frequency. Leave it blank if there is no maximum age.<br><br>AGE MATCH TEXT:<br>This text will be displayed in the Clinical Maintenance component if the patient's age falls in the age range.<br><br>AGE NO MATCH TEXT:<br>This text will be displayed in the Clinical Maintenance component if the patient's age does not fall in the age range. |
| FINDING | The Findings multiple is documented later in this chapter. |
| CUSTOMIZED PATIENT COHORT LOGIC | (Optional)<br>This field may be used to define a customized Boolean logic string that defines how and what findings in a reminder should be used to determine if the reminder applies to the patient. The customized logic is used when the USE IN PATIENT COHORT LOGIC fields associated with each finding do not provide the ability to create the required logic string. (e.g., grouping various findings within parenthesis)<br><br>Tip: Before defining the Boolean string, review the default logic defined in the DEFAULT PATIENT COHORT LOGIC field using the reminder inquiry option. |
| GENERAL PATIENT COHORT FOUND TEXT | This text is displayed in the Clinical Maintenance component if the patient is in the cohort and the reminder is applicable. |
| GENERAL PATIENT COHORT NOT FOUND TEXT | This text will be displayed in the Clinical Maintenance component if the patient is not in the cohort and the reminder is not applicable. |

## *Reminder Definition Fields, cont'd*

| Name | Description |
|---|---|
| CUSTOMIZED RESOLUTION LOGIC | (Previously USE IN DATE DUE CALC)<br>This field may be used to define a customized Boolean logic string that defines how and what reminder findings should be used to determine if the reminder has been resolved. The customized logic is used when the USE IN RESOLUTION LOGIC fields associated with each finding do not provide the ability to create the required logic string. (e.g., grouping various findings within parenthesis)<br>Tip: Before defining the Boolean string, review the default logic defined in the DEFAULT RESOLUTION LOGIC field using the reminder inquiry option.<br>Boolean Operators<br>AND (&), AND NOT (&'), OR (!), OR NOT (!')<br>The package uses these to build the logic strings<br>Example FI(1)&(FI(3)!FI(7)) |
| GENERAL RESOLUTION FOUND TEXT | This text will be displayed in the Clinical Maintenance component if the reminder has been resolved. |
| GENERAL RESOLUTION NOT FOUND TEXT | This text will be displayed in the Clinical Maintenance component if the reminder has not been resolved. |
| LINKED REMINDER DIALOG | This is the Reminder Dialog that will be used when the reminder is processed in the CPRS GUI. |
| WEB SITES | This multiple contains Web site(s) for information related to this reminder. When processing a reminder in the CPRS GUI you will be able to launch a browser and visit the Web site. |
| Select URL | This is the URL for the web site. |
| WEB SITE TITLE | This is the web site title that is used by the CPRS GUI. It will appear after a right-click, allowing you to select the web site. |
| WEB SITE DESCRIPTION | This field contains a description of the Web site. |

**Reminder Findings**

Findings are the heart of the reminder definition. Findings have three functions in reminder definitions:

- To select the applicable patient population (Patient Cohort Logic),
- To resolve the reminder (Resolution Logic), and
- For informational purposes.

**Findings Types**

| Finding Type | Source File Number | Abbreviation |
|---|---|---|
| Drug | 50 | DR |
| Education Topic | 9999999.09 | ED |
| Exam | 9999999.15 | EX |
| Health Factor | 9999999.64 | HF |
| Immunization | 9999999.14 | IM |
| Laboratory Test | 60 | LT |
| Mental Health Instrument | 601 | MH |
| Orderable Item | 101.43 | UI |
| Radiology Procedure | 71 | RP |
| Reminder Computed Finding | 811.4 | CF |
| Reminder Taxonomy | 811.2 | TX |
| Reminder Term | 811.5 | RT |
| Skin Test | 9999999.28 | ST |
| VA Drug Class | 50.605 | DC |
| VA Generic | 50.6 | DG |
| Vital Measurement | 120.51 | VM |

☞ **TIP**: When editing findings in a reminder definition or term, you can save time by giving an exact specification of the name of the finding by using the abbreviation. This tells FileMan exactly where to find it and avoids long searches.
Example

For finding: VA-DIABETES taxonomy
Enter: TX.VA-DIABETES

**Drug** –Drugs are found in the DRUG file #50. Drug information for a patient is obtained using a Pharmacy API. The date of a drug finding corresponds to the last day the patient has the drug. Therefore, these findings may have a date that is in the future. For outpatient drugs, the finding date is determined by taking the last release date and adding the day's supply. For inpatient drugs, the finding date is the stop date. If no date can be found the finding will be false. The date calculation is identical for all three of the drug-related findings: Drug, Drug Class, and VA Generic.

In many cases, you will want to use either the EFFECTIVE PERIOD or EFFECTIVE DATE with drug findings.

Examples

- If you want to know if the patient had the drug within the last 45 days, you would use an EFFECTIVE PERIOD of "45D."
- If you want to know if the patient had taken the drug on or since October 1, 1998, use an EFFECTIVE DATE of October 1, 1998.
- If you want to know if the patient is on the drug today, use an EFFECTIVE PERIOD of "0D."
- If you want to know if the patient has ever taken the drug, then you would leave both the EFFECTIVE PERIOD and EFFECTIVE DATE blank.

STATUS is not used in evaluating drug findings, since it does not accurately reflect when the patient was actually taking the drug. For informational purposes, STATUS will be displayed on the Clinical Maintenance output for drug findings.

**Education Topic** – Education topics are found in the EDUCATION TOPICS file #9999999.09. Results for individual patients are found in the V PATIENT ED file #9000010.16. The value used for the CONDITION is LEVEL OF UNDERSTANDING. Possible values are:
'1' FOR POOR;
'2' FOR FAIR;
'3' FOR GOOD;
'4' FOR GROUP-NO ASSESSMENT;
'5' FOR REFUSED
If you want to allow only those educations where the LEVEL OF UNDERSTANDING is GOOD to be true, the CONDITION field would be I V=3.

**Exam** – Exams are found in the EXAM file #9999999.15. Results for individual patients are found in the V EXAM file #9000010.13. The value used for the CONDITION is the RESULT. Possible values are:
'A' FOR ABNORMAL
'N' FOR NORMAL
If you want only those exams where the RESULT is NORMAL to be true, the CONDITION field would be I V="N".

**Health Factor** – Health factors are found in the HEALTH FACTOR file #9999999.64. Results for individual patients are found in the V HEALTH FACTOR file #9000010.23. The value used for the CONDITION is LEVEL/SEVERITY. Possible values are:
'M' FOR MINIMAL
'MO' FOR MODERATE
'H' FOR HEAVY/SEVERE

If you want only those health factors whose LEVEL/SEVERITY is HEAVY/SEVERE to be true, then the CONDITION field would be I V="H".

Health Factors have a field called ENTRY TYPE. There are two possible values for this field: CATEGORY and FACTOR. Each factor health factor must belong to a category. This provides a way to group health factors. Examples of categories are alcohol use, breast cancer, and tobacco. When reminders are evaluated, if there is more than one health factor from a category in the definition, only the most recent health factor in the category can be true. This has several uses. One is to activate and inactive a reminder for a patient. You can use the inactivate health factor in the PATIENT COHORT LOGIC with a value of AND NOT. This will make it so any patient who has the inactivate health factor will be excluded from the cohort. When you need to reactivate the reminder for the patient, give the patient the activate health factor. Since it is more recent than the inactivate health factor and they are in the same category, it will take precedence and the inactivate health factor will be treated as false. Smoking is another example. If the patient is currently a smoker, the patient can be given a current smoker health factor. Reminders that apply only to smokers would use the current smoker health factor in the PATIENT COHORT LOGIC with a value of AND. If the patient quits smoking, he can be given a health factor of non-smoker. Since smoker and non-smoker are in the same category, the reminders for smokers will no longer apply to the patient.

When health factors are mapped to a Term, the categorization is done only for the health factors in the Term. The Term factors are not combined with health factors in the definition for the categorization.

The field WITHIN CATEGORY RANK will let you change this behavior. See that section for a description of how to use it.

Only those Health Factors with an ENTRY TYPE of FACTOR can be used in reminder definitions. However, when you create a packed reminder definition using the reminder exchange utility, each factor health factor and its category health factor are included. This is done so that a receiving site can install the factor health factors used in the reminder definition. Factor health factors cannot be installed if their category health factor does not exist first. Category health factors should be installed before factor health factors.

**Immunization** – Immunizations are found in the IMMUNIZATION file #9999999.14. Results for individual patients are found in the V IMMUNIZATION file #9000010.11. The value used for the CONDITION is the SERIES. Possible values are:

```
'P' FOR PARTIALLY COMPLETE
'C' FOR COMPLETE
'B' FOR BOOSTER
'1' FOR SERIES 1
'2' FOR SERIES 2
'3' FOR SERIES 3
'4' FOR SERIES 4
'5' FOR SERIES 5
'6' FOR SERIES 6
'7' FOR SERIES 7
'8' FOR SERIES 8
```

**Laboratory Test** – Laboratory tests are found in the LABORATORY TEST file #60. Data for a test in the LABORATORY TEST file and a selected patient is found using a Lab API. Note that only individual tests in the chemistry/hematology node can be used for Clinical Reminders. The value for the CONDITION is the result returned by the lab test. The normal range of values and the units will be a function of the particular test.

**Mental Health Instrument –** Mental Health Instruments are found in the MENTAL HEALTH INSTRUMENT file #601. Data for a test in the MENTAL HEALTH INSTRUMENT file and a selected patient is found using a Mental Health API. The value for the CONDITION is the result returned by the Mental Health test. The normal range of values and the units will be a function of the particular test. When the user enters answers to a mental health test, the answers are automatically passed to the Mental Health package to calculate a result, which may be referenced as SCORE. For example, CAGE test has a SCORE from 1-4 and GAF has a SCORE from 1-99.

For most Mental Health tests, progress note text can be automatically generated that summarizes or includes the results (SCORE). Default text is distributed in the REMINDER DIALOG file # 801.41 for sites to use for each Mental Health test processed in the reminder resolution process. This text may be copied and modified to reflect the site's preferences for text. The default text is defined in Mental Health Result Dialog Elements. The reminder manager must add the Result Dialog Elements to the MH Instrument tests Dialog Element RESULT GROUP/ELEMENT field. This result dialog may define further processing to conditionally generate progress note text based on the SCORE.

**Orderable Item** – Orderable Items are found in the ORDERABLE ITEMS file #101.43. Data for an orderable item and a selected patient are found using an OE/RR API. If there are orders for the orderable item with a status of ACTIVE or PENDING, the finding will be true unless it has expired due to the EFFECTIVE PERIOD or EFFECTIVE DATE. The date used is the START DATE. If no ACTIVE or PENDING orders are found, then the one with the most recent date is used; however, by default, the finding will be false. You will need to use the CONDITION field to make findings that do not have a status of ACTIVE or PENDING true.
The value for the CONDITION is the order status.

Possible order statuses are found in the ORDER STATUS file #100.01. These are:

| | | | |
|---|---|---|---|
| discontinued | complete | hold | flagged |
| pending | active | expired | scheduled |
| partial results | delayed | unreleased | renewed |
| discontinued/edit | cancelled | lapsed | no status |

OE/RR displays these as lower-case and that is how the API returns them; t***herefore the*** *CONDITION* ***field must use lower-case***. For example if you wanted orders whose status is complete, then the CONDITION field should be I V="complete." Note: You can set the field CONDITION CASE SENSITIVE to NO to make the CONDITION not case-sensitive.

**Radiology Procedure** – Radiology procedures are found in the RAD/NUC MED PROCEDURES file #71. Data for a radiology procedure and a selected patient is found using a Radiology API. The status can be one of the following: CANCELLED, COMPLETED, IN PROGRESS, or NONE. Procedures with a status of CANCELLED or NONE are not used. Only COMPLETED procedures can cause the finding to be true. If there is an IN PROGRESS procedure that is more recent than a COMPLETED one, or there is no COMPLETED procedure, information about the IN PROGRESS procedure is displayed in the Clinical Maintenance component.

**Reminder Computed Findings** – Reminder Computed Findings are found in the COMPUTED FINDINGS file #811.4. Computed findings provide the ability to create custom findings for situations when none of the standard findings will work.

*See the section on Computed Findings later in this chapter for more details.*

**Exported computed findings**

| COMPUTED FINDING | VALUE | CONDITION Examples |
|---|---|---|
| VA-BMI | Patient's body mass index | I V>26 |
| VA-DATE OF BIRTH | Patient's date of birth in FileMan format: 1/1/45 is represented as 2450101 | I V>2450000 represents patients born 1945 and later. |
| VA-DATE OF DEATH | Patient's date of death in FileMan format. This will have a value only if the patient is deceased. | I V>2450101 |
| VA-PRIMARY CARE PROVIDER | Patient's primary care provider. This is the name field from file #200, the NEW PERSON file. If no primary care provider has been assigned this will be null. | I V=""<br>Note: This would check for no primary care provider. |
| VA-PRIMARY CARE TEAM | Patient's primary care team. This is the name field from file #404.51, the TEAM file. If no primary care team has been assigned this will be null. | I V=""<br>Note: This would check for no primary care team. |
| VA-RACE | Patient's race. This will correspond to one of the entries in the name field of file #10, the RACE file. These will be in the form RACE. | I V["BLACK"<br>Note: this would find all entries in the RACE file containing "BLACK." |

**Reminder Taxonomy** – Reminder taxonomies are found in the REMINDER TAXONOMY file #811.2. Reminder taxonomies provide a convenient way to group coded values and give them a name. For example, the VA-DIABETES taxonomy contains a list of diabetes diagnoses.

A taxonomy can contain ICD0, ICD9, and CPT codes. The codes are entered as a low value and a high value. These pairs are automatically expanded into a set that contains the low value, the high value, and every code in between. Clinical Reminders searches in a number of places for code matches. For ICD9 codes, it looks in V POV, PROBLEM LIST, and PTF. For CPT codes, it looks in V CPT and Radiology. For ICD0 codes, it looks in PTF.

*Reminder Findings, cont'd*

There are two dates associated with ICD9 diagnoses found in PROBLEM LIST. There is the date entered and the date last modified. The PRIORITY field is used to determine if a problem is chronic or acute. If the problem is chronic, Clinical Reminders will use today's date in its date calculations; otherwise it will uses the date last modified. Problems that are "chronic" can never expire. Note that it only uses active problems unless the field USE INACTIVE PROBLEMS is yes.

The following are fields that can be specified for each taxonomy finding:

USE INACTIVE PROBLEMS – Normally, Problem List problems that are marked as inactive are ignored during the reminder evaluation. If you want them to be used, give this field a value of "YES."

PATIENT DATA SOURCE specifies where to search for patient data. It is a string of comma-separated key words. The keywords and their meanings are:

| KEYWORD | MEANING |
|---|---|
| IN | Search in the inpatient data file PTF |
| INDXLS | Search in PTF for DXLS only |
| INPR | Search in PTF for principal diagnosis only |
| EN | Search encounter (PCE) data |
| ENPR | Search PCE data for primary diagnosis only |
| PL | Search for Problem List diagnosis only |
| RA | Search in Radiology for radiology CPT codes. |

You may use any combination of these keywords. An example is EN,RA. This would cause the search to be made in V CPT and Radiology for CPT codes. If PATIENT DATA SOURCE is left blank, the search is made in all the possible sources.

*See the section later in this chapter that describes Reminder Taxonomy options.*

**Reminder Term** – Reminder Terms are found in file #811.5. Reminder Terms provide a way to define a general term, for example diabetes diagnosis, which can be linked to specific findings. A Reminder Term must be linked to at least one finding before it can be used for reminder evaluation. A Reminder Term can be linked to more than one finding. Reminder Terms can be linked to any of the findings, except Reminder Terms, that can be used in a Reminder Definition.

Each node of the findings multiple in a term has the following fields: EFFECTIVE PERIOD, USE INACTIVE PROBLEMS, WITHIN CATEGORY RANK, CONDITION, and MH SCALE. These fields work exactly the same as the fields with the same names in the findings multiple of the reminder definition. If one of these fields is specified at the definition findings level, where the term is the finding, then each finding in the term will inherit the value. If the field is specified at

the finding level of the term, then it will take precedence and replace what has been specified at the definition level.

*See the section later in this chapter that describes Reminder Term options.*

**Skin Test** – Skin Tests are found in the SKIN TEST file #9999999.28. Results for individual patients are found in the V SKIN TEST file #9000010.12. The value used for CONDITION is RESULTS. Possible values are:

'P' FOR POSITIVE
'N' FOR NEGATIVE
'D' FOR DOUBTFUL
'O' FOR NO TAKE

If you want only those findings to be true for skin tests whose results are positive, the action would be I V="P".

**VA Drug Class** – VA Drug Class entries are found in the VA DRUG CLASS file #50.605. An entry from the VA Drug Class file points to one or more entries in the Drug file. Each of the corresponding entries in the Drug file is processed as described in the Drug section. The information displayed in the Clinical Maintenance component includes the VA Drug Class and the particular drug that was found.

**VA Generic** – VA Generic entries are found in the VA GENERIC file #50.6. (This was formerly called the National Drug file.) An entry from the VA Generic file points to one or more entries in the Drug file. Each of the corresponding entries in the Drug file is processed as described in the Drug section. The information displayed in the Clinical Maintenance component includes the VA Generic name and the particular drug that was found.

**Vital Measurement** – Vital Measurement entries are found in the GMRV VITAL MEASUREMENT file #120.5. A Vitals API is used to obtain the information for a selected measurement and patient. The value for the CONDITION is RATE, which is the value of the measurement. If you are going to use a CONDITION with this finding, you need to be familiar with how the Vitals package returns the Rate data. For example, if the vital sign is weight, the Rate will be a number that is the weight in pounds. If the vital sign is blood pressure, the rate will have the form systolic/diastolic. If you wanted the finding to be true only for systolic pressures greater than 140, then the CONDITION would be I $P(V,"/",1)>140. If you wanted it to be true for diastolic pressures greater than 90, the CONDITION would be I $P(V,"/",2)>90. Finally if you wanted it to be true for systolic pressures greater than 140 and diastolic pressures greater than 90, the CONDITION would be I ($P(V,"/",1)>140)&($P(V,"/",2)>90).

**Findings Fields**

There are a number of fields in the Findings multiple that control how each Finding is used in the reminder evaluation process. Each of these fields is described in detail below. Note that each field is optional. If it is not present, the finding will not be used for the purpose of the field.

MINIMUM AGE, MAXIMUM AGE, and FREQUENCY – These are treated as a set that we can call a frequency age range set. If a finding is true then the frequency age range set will override the baseline frequency age range set. This is used when a finding should override the baseline. For example, a patient with a particular health factor needs to get the reminder at an earlier age than normal and it should be done more frequently.

RANK FREQUENCY – If more than one finding that has a frequency age set is true, then how do we decide which frequency age set to use? That is the purpose of the RANK FREQUENCY. The frequency age range set from the finding with the highest RANK FREQUENCY will be used. In the absence of RANK FREQUENCY, the frequency age range set that will cause the reminder to be given the most often will be used. RANK FREQUENCY is a numerical value with 1 being the highest.

USE IN RESOLUTION LOGIC – This field specifies how a finding is used in resolving a reminder. The field is a set of codes that can contain the Mumps Boolean operators and their negations. The operators are ! (OR), & (AND), '! (NOT OR), and '& (NOT AND). If a particular finding must be true in order for the reminder to be resolved, then you would use an AND in this field. If the finding is one of a number of findings that will resolve a reminder, then you would use an OR. For those cases where this mechanism does not allow you to describe the exact logical combination of findings you require, you can input the logic directly in the CUSTOM RESOLUTION LOGIC field.

USE IN PATIENT COHORT LOGIC – This field specifies how a finding is used in selecting the applicable patient population; i.e., the patient cohort. It is a set of codes that works exactly like the USE IN RESOLUTION LOGIC. For those cases where this mechanism does not allow you to describe the exact logical combination of findings you require, you can input the logic directly in the CUSTOM PATIENT COHORT LOGIC field.

EFFECTIVE PERIOD – This field lets you give a finding a finite lifetime. It is input in the standard time format of ND, NM, NY, where N is a number and D stands for days, M for months, and Y for years. Thus, to give a finding a lifetime of two years, you would input 2Y. If today's date is greater than the date of the finding plus the EFFECTIVE period, then the finding will be false. When this field is left blank, the finding will never expire.

EFFECTIVE DATE – The function of this field is similar to EFFECTIVE PERIOD only instead of specifying an amount of time a specific date is given. If the date of the finding is older than the EFFECTIVE DATE the finding will be false.

USE INACTIVE PROBLEMS – This field applies only to taxonomies containing ICD 9 diagnoses. If the diagnosis is found in the PROBLEM LIST and it is inactive, then the finding cannot be true unless this field is set to YES.

WITHIN CATEGORY RANK – This field applies only to health factors. In order to understand how it works, you need to understand how health factors work in the reminder evaluation process. If you are not clear about this, see the Health Factor section. The default is to use only the most recent Health factor within a category. A problem can arise if there are two or more Health factors within a category and they both have the same date. (This can happen if both Health factors are given during the same encounter.) When the dates are the same, the Health factor with the highest WITHIN CATEGORY RANK will be used. This is a numerical value like RANK FREQUENCY with 1 being the highest rank. In some cases, you may want to have a Health factor treated as an individual finding, suppressing the category behavior. To do this, use the special value of 0 for the WITHIN CATEGORY RANK.

CONDITION – Many types of findings have associated values. For example, for Education Topics, the value is Level of Understanding; for Vital Measurement, it is the value of the measurement. More specific information can be found in the detailed section for each finding type. The CONDITION field can be used to make the finding true or false depending on the value of the finding. The contents of this field are a single line of Mumps code that should evaluate to true or false. If the code evaluates to true, then the finding is true; if it evaluates to false, then the finding is false. The CONDITION value for each finding type is given in the following table.

**PXRM*1.5*2:** The CONDITION field now has a maximum length of 225.

CONDITION CASE SENSITIVE. When this field is set to "NO" then the CONDITION will not be case-sensitive. The default is case-sensitive.

| Finding Type | Action Value |
|---|---|
| Drug | None |
| Education Topic | Level of Understanding |
| Exam | Result |
| Health Factor | Level/severity |
| Immunization | Series |
| Laboratory Test | Value |
| Mental Health Instrument | Raw score |
| Orderable Item | Status |
| Radiology Procedure | None |
| Reminder Computed Finding | Determined by the programmer |
| Reminder Taxonomy | None |
| Skin Test | Results |
| VA Drug Class | None |
| VA Generic | None |
| Vital Measurement | Rate |

In addition to the values for type of finding shown in the above table the following variables can be used in any CONDITION:

PXRMAGE - patient's age
PXRMDOB - patient's date of birth in FileMan format
PXRMRACE - patient's race (this is the text from the RACE file)
PXRMSEX - patient's sex, in the format M^MALE or F^FEMALE

The use of these variables is very similar to how you use the V variable.
For example if you want the finding to apply only to patients who are 65 and younger the CONDITION is I PXRMAGE'>65 (in English if AGE is not greater than 65). You can combine these new variables and the V in a CONDITION. Let's say we want a finding that is true for all patients whose BMI>25, were born before 1955 and whose race is Asian. Our finding is the BMI finding so the CONDITION is (I V>25)&(PXRMDOB<2550101)&(PXRMRACE["ASIAN").

### Reminder Findings Condition Table

Some examples of simple CONDITIONS are shown in the following table:

| Finding Type | Results File | Result Fields that can be used in ACTION | Data example | CONDITION field example |
|---|---|---|---|---|
| Drug (50) | | NONE – but you can use EFFECTIVE PERIOD of 0D, 0M, OR 0Y in the reminder definition to restrict view to current medications only | | |
| Education Topic (9999999.09) | V PATIENT ED (9000010.06) | LEVEL OF UNDERSTANDING | 1 for Poor<br>2 for Fair<br>3 for Good<br>4 for Group-no Assessment<br>5 for Refused | I V=1<br>I V=2<br>I V=3<br>I V=4<br>I V=5 |
| Exam (9999999.15) | V EXAM (9000010.13) | RESULT | A for Abnormal<br>N for Normal | I V="A"<br>I V="N" |
| Health Factor (9999999.64) | V HEALTH FACTOR (9000010.23) | LEVEL/SEVERITY | M for Minimal<br>MO for Moderate<br>H for Heavy/Severe | I V="M"<br>I V="MO"<br>I V="H" |
| Immunization (9999999.14) | V IMMUNIZATION (9000010.11) | SERIES | P for Partially Complete<br>C for Complete<br>B for Booster<br>1 for Series 1<br>2 for Series 2<br>3 for Series 3<br>4 for Series 4<br>5 for Series 5<br>6 for Series 6<br>7 for Series 7<br>8 for Series 8 | I V="P"<br>I V="C"<br>I V="B"<br>I V=1<br>I V=2<br>I V=3<br>I V=4<br>I V=5<br>I V=6<br>I V=7<br>I V=8 |
| Laboratory Test (60) | LAB RESULTS in "CH" node | Number returned from the Lab API as the lab result | 180 | I V>130 |
| Mental health Instrument (601) | | RAW SCORE from API based on a scale | 3 (CAGE) | I V>2 |
| Orderable Item (101.43) | | | | |

MH Scale – This is applicable only to Mental Health Instrument findings. The scale can be selected by scale number or scale name.

FOUND TEXT – This is a word-processing field. The contents of this field will be displayed in the Clinical Maintenance component whenever the finding is found (true).

NOT FOUND TEXT – This is a word-processing field. The contents of this field will be displayed in the Clinical Maintenance component whenever the finding is not found (false).

Both FOUND TEXT and NOT FOUND TEXT can contain TIU objects.

**Exported Reminders**

A set of reminder definitions is distributed with the package. These exported reminders can serve several purposes. You can use them as examples and templates for creating your own reminders. In many cases, sites will want to modify these definitions to meet local needs. As described earlier in this chapter, this is done by first copying the VA- reminder definition to a local definition and then editing the local definition. If the VA- reminder *does* meet your local needs, you can use it directly.

NOTE: The VA-* prefix indicates that the reminder was approved by the National Center for Health Promotion (NCHP). The VA- prefixed reminders were approved by the Ambulatory Care Expert Panel (now defunct).

```
VA-*BREAST CANCER SCREEN
VA-*CERVICAL CANCER SCREEN
VA-*CHOLESTEROL SCREEN (F)
VA-*CHOLESTEROL SCREEN (M)
VA-*COLORECTAL CANCER SCREEN (FOBT)
VA-*COLORECTAL CANCER SCREEN (SIG.)
VA-*FITNESS AND EXERCISE SCREEN
VA-*HYPERTENSION SCREEN
VA-*INFLUENZA IMMUNIZATION
VA-*PNEUMOCOCCAL VACCINE
VA-*PROBLEM DRINKING SCREEN
VA-*SEATBELT AND ACCIDENT SCREEN
VA-*TETANUS DIPHTHERIA IMMUNIZATION
VA-*TOBACCO USE SCREEN
VA-*WEIGHT AND NUTRITION SCREEN
VA-ADVANCED DIRECTIVES EDUCATION
VA-ALCOHOL ABUSE EDUCATION
VA-BLOOD PRESSURE CHECK
VA-BREAST EXAM
VA-BREAST SELF EXAM EDUCATION
VA-DIABETIC EYE EXAM
VA-DIABETIC FOOT CARE ED.
VA-DIABETIC FOOT EXAM
VA-DIGITAL RECTAL (PROSTATE) EXAM
VA-EXERCISE EDUCATION
VA-FECAL OCCULT BLOOD TEST
VA-FLEXISIGMOIDOSCOPY
VA-HEP C RISK ASSESSMENT
VA-INFLUENZA VACCINE
VA-MAMMOGRAM
VA-NATIONAL EPI LAB EXTRACT
VA-NATIONAL EPI RX EXTRACT
VA-NUTRITION/OBESITY EDUCATION
VA-PAP SMEAR
VA-PNEUMOVAX
VA-PPD
VA-PSA
VA-SEATBELT EDUCATION
VA-TOBACCO EDUCATION
VA-WEIGHT
```

## Taxonomies

Taxonomies are coded data that use ICD or CPT codes. Reminder taxonomies provide a convenient way to group coded values and give them a name. For example, the VA-DIABETES taxonomy contains a list of diabetes diagnoses. Options on the Taxonomy Management Menu let you view and edit taxonomy definitions.

### Taxonomy Management Menu

| Syno-nym | Option | Option Name | Description |
|---|---|---|---|
| TL | List Taxonomy Definitions | PXRM TAXONOMY LIST | This option lists the current definitions of all the taxonomies defined in the REMINDER TAXONOMY file. The REMINDER TAXONOMY file is used to define a range of coded values from ICD Diagnosis codes, ICD Operation/Procedures codes, and CPT codes that can be viewed as being part of a clinical category (taxonomy). |
| TI | Inquire about Taxonomy Item | PXRM TAXONOMY INQUIRY | This option provides a detailed report of a Taxonomy item's definition, with a list of all the ICD0, ICD9, and CPT codes included in the taxonomy. |
| TE | Edit Taxonomy Item | PXRM TAXONOMY EDIT | This option is used to edit the Reminder Taxonomy Item definitions. |
| TC | Copy Taxonomy Item | PXRM TAXONOMY COPY | This option allows the user to copy an existing taxonomy definition into a new taxonomy entry in the REMINDER TAXONOMY file (#811.2). |

**Taxonomy Fields**

| NAME | DESCRIPTION |
|---|---|
| NAME | This is the name of the taxonomy. It must be unique. Nationally distributed taxonomies start with "VA-". |
| BRIEF DESCRIPTION | This is a brief description of what the taxonomy represents. This may be used to further define the intended use of this taxonomy. |
| PATIENT DATA SOURCE | Specifies where to search for patient data. It is a string of comma-separated key words. |
| USE INACTIVE PROBLEMS | Applies only to searches in Problem List. Normally inactive problems are not used. However when this field is set to YES, then both active and inactive problems are used. This field works just like the field with the same name that can be specified for a reminder definition finding or a reminder term finding. If this field is defined in the taxonomy, it will take precedence over the value of the corresponding field at the term or definition level. |
| INACTIVE FLAG | Enter "1" to inactivate the taxonomy. This flag is set to ACTIVE in the distribution. As part of the installation, each site should review the taxonomy definitions and inactivate those that do not meet the site's needs. If desired, a site can copy a distributed taxonomy, using the taxomony copy option, to a local version and edit it to meet the site's needs. If a taxonomy is inactive, it cannot be selected as a finding in a reminder definition. |
| ICD0 Range of Coded Values (multiple) | This multiple is used to define ranges of ICD0 coded values that constitute taxonomy entries. A range is defined by a low and high value that are inclusive. The low and high values are actual codes from the source file, not internal entry numbers. |
| ICD9 Range of Coded Values (multiple) | This multiple is used to define ranges of ICD9 coded values that constitute taxonomy entries. A range is defined by a low and high value that are inclusive. The low and high values are actual codes from the source file, not internal entry numbers. |
| CPT Range of Coded Values | This multiple is used to define ranges of CPT coded values that constitute taxonomy entries. A range is defined by a low and a high value that are inclusive. The low and high values are actual codes from the source file, not internal entry numbers. |

PATIENT DATA SOURCE specifies where to search for patient data. It is a string of comma-separated key words. The keywords and their meanings are:

| KEYWORD | MEANING |
|---|---|
| IN | Search in the inpatient data file PTF |
| INDXLS | Search in PTF for DXLS only |
| INPR | Search in PTF for principal diagnosis only |
| EN | Search encounter (PCE) data |
| ENPR | Search PCE data for primary diagnosis only |
| PL | Search for Problem List diagnosis only |
| RA | Search in Radiology for radiology CPT codes. |

You may use any combination of these keywords. An example is EN,RA. This would cause the search to be made in V CPT and Radiology for CPT codes. If PATIENT DATA SOURCE is left blank, the search is made in all the possible sources.

### List Taxonomy Definitions (TL)

Use this option to list the current definition of taxonomies defined in the REMINDER TAXONOMY file, which defines the coded values from ICD Diagnosis, ICD Operation/ Procedures, or CPT codes that are part of a clinical category (taxonomy). These taxonomy low and high range definitions are used by the Clinical Reminders logic to determine if a patient has coded values in the clinical files that indicate the patient is part of the taxonomy.

```
Select Taxonomy Management Option: TL  List Taxonomy Definitions
DEVICE: <Enter>  ANYWHERE    Right Margin: 80//<Enter>
REMINDER TAXONOMY LIST
           ICD9 RANGE           ICD0 RANGE            CPT RANGE
NAME     LOW       HIGH      LOW       HIGH      LOW       HIGH
------------------------------------------------------------------------------
PAIN TAXONOMY
         388.71    388.72                        62350     62351
         719.40    719.49                        90783     90784
         724.1     724.1
         789.00    789.09
         724.2     724.2
         926.11    926.11
         724.5     724.5

PROBTEST 1
         311.      311.                          90724     90724


Pain - Lower Back
         388.71    388.72                        62350     62351
         719.40    719.49                        90783     90784
         724.1     724.1
         789.00    789.09
         724.2     724.2
         926.11    926.11
         724.5     724.5

RADTAX
                                                 76091     76091
                                                 71030     71030

SL ALCOHOL ABUSE
         291.0     291.9
         303.00    303.93
         305.00    305.03
         571.0     571.3
         760.71    760.71
         790.3     790.3
         980.0     980.0
         535.3     535.31
         V11.3     V11.3
```

### Inquire about Taxonomy Item (TI)

Use this option to list the current definition of a single taxonomy. This option gives more detail than the Taxonomy List option.

```
Select Taxonomy Management Option: TI  Inquire about Taxonomy Item
Select Reminder Taxonomy: VA-PNEUMOCOCCAL VACCINE   Pneumococcal vaccine codes
         ...OK? Yes// <Enter>  (Yes)
DEVICE: <Enter>  ANYWHERE    Right Margin: 80// <Enter>
REMINDER TAXONOMY INQUIRY               Apr 05, 2000 12:04:15 pm  Page 1
------------------------------------------------------------------------------
        NUMBER: 25

VA-PNEUMOCOCCAL VACCINE
---------------------------------
Brief Description:
    Pneumococcal vaccine codes
Patient Data Source:
Use Inactive Problems:
ICD9 Codes:

    Range  V06.6-V06.6

      Code      ICD Diagnosis
      ----      -------------
      V06.6     PROPHY VACC STREP PNEU&FLU


ICD0 Codes:

    Range  99.55-99.55

      Code      ICD Operation/Procedure
      ----      ----------------------
      99.55     VACCINATION NEC

    Range  99.59-99.59

      Code      ICD Operation/Procedure
      ----      ----------------------
      99.59     VACCINATION/INNOCULA NEC

CPT Codes:
    Range  G0009-G0009

      Code      CPT Short Name
      ----      --------------
      G0009     Admin pneumococcal vaccine

    Range  90732-90732

      Code      CPT Short Name
      ----      --------------
      90732     PNEUMOCOCCAL VACCINE, ADULT

Select Reminder Taxonomy: <Enter>
```

### Edit Taxonomy Item (TE)

Use this option to edit a single taxonomy definition.

```
Select Taxonomy Management Option: TE  Edit Taxonomy Item

Select Reminder Taxonomy Item:  SLC DIABETES     SLC DIABETES CODES

General Taxonomy Data
NAME: SLC DIABETES// <Enter>
BRIEF DESCRIPTION: SLC DIABETES CODES// <Enter>
PATIENT DATA SOURCE: ?
     Answer must be 1-40 characters in length.

This is a list of comma separated patient data sources.
You may use any combination of valid entries.
Valid entries are:
  IN - inpatient from PTF
  INDXLS - inpatient DXLS diagnosis only
  INPR - inpatient primary diagnosis only
  EN - encounter PCE data
  ENPR - encounter PCE data primary diagnosis only
  PL - Problem List
  RA - radiology CPT only

PATIENT DATA SOURCE: PL
USE INACTIVE PROBLEMS: <Enter>
INACTIVE FLAG: <Enter>

ICD0 Range of Coded Values
Select ICD0 LOW CODED VALUE: <Enter>

ICD9 Range of Coded Values
Select ICD9 LOW CODED VALUE: 391.8// <Enter>
  ICD9 LOW CODED VALUE: 391.8//<Enter>
  ICD9 HIGH CODED VALUE: 391.8// <Enter>
Select ICD9 LOW CODED VALUE: <Enter>

CPT Range of Coded Values
Select CPT LOW CODED VALUE: 10060// <Enter>
  CPT LOW CODED VALUE: 10060// <Enter>
  CPT HIGH CODED VALUE: 10060// <Enter>
Select CPT LOW CODED VALUE: <Enter>

Select Reminder Taxonomy Item: <Enter>
```

### Copy Taxonomy Item (TC)

Use this option to copy an existing taxonomy definition into a new entry in the REMINDER TAXONOMY file (#811.2). Once the taxonomy has been copied, you have the option of editing it.

```
Select Taxonomy Management Option: TC  Copy Taxonomy Item

Select the taxonomy item to copy: VA-ALCOHOL ABUSE     Alcohol abuse codes
PLEASE ENTER A UNIQUE NAME: SL ALCOHOL ABUSE

The original taxonomy VA-ALCOHOL ABUSE has been copied into SL ALCOHOL ABUSE.
Do you want to edit it now? YES

General Taxonomy Data
.
.
.
```

*If you choose to edit the taxonomy you've copied, you will see the same prompts as in Edit Taxonomy Item, described on the previous page.*

### Reminder Terms

A reminder term provides a way to group findings under a single name, just as a taxonomy lets you group a set of codes under a single name. Each term has a findings multiple that is just like the findings multiple in the reminder definition. The list of possible findings in a term is the same as in a definition except that a term cannot have another term as a finding.

When a term is evaluated, the entire list of findings is evaluated and the most recent true finding is used for the value of the term. If none of the findings are true, then the term is false.

Terms can be:
- National (N)
- VISN (V)
- Local (L)

These options will be useful in the future for national guidelines/reporting. The Reminder Term functionality will allow you to map local or VISN-level findings to national terms.

### Reminder Term Management Options

| Synonym | Option | Option Name | Description |
|---|---|---|---|
| TL | List Reminder Terms | PXRM TERM LIST | This option allows a user to display a list of reminder terms that have been defined. |
| TI | Inquire about Reminder Term | PXRM TERM INQUIRY | This option allows a user to display the contents of a reminder term in an easy-to-read format. |
| TE | Reminder Term Edit | PXRM TERM EDIT | This option is used to edit reminder terms. NOTE: Name the reminder terms using all capital letters because the names are case sensitive. |
| TC | Copy Reminder Term | PXRM TERM COPY | This option allows a user to copy an existing reminder term into a new one. The new term must have a unique name. |

### List Reminder Terms (TL)

This option is used to give a brief listing of reminder terms.

```
Select Reminder Term Management Option: TL  List Reminder Terms
DEVICE: <Enter>  ANYWHERE    Right Margin: 80// <Enter>
REMINDER TERM LIST                              MAY  8,2000  12:33    PAGE 1
------------------------------------------------------------------------------
DECLINED HEP C RISK ASSESSMENT
    Term Type:    National
    Date Added:   APR 24,2000
    Sponsored by: INFECTIOUS DISEASES PROGRAM OFFICE, VAHQ
    Description:  This term represents patient declined or refused to have
                  the Hepatitis C Risk Assessment.  Add any health factors or
                  other finding items that your local site uses to represent
                  this term.
    Findings:     DECLINED HEP C RISK ASSESSMENT

HEP C VIRUS ANTIBODY NEGATIVE
    Term Type:    National
    Date Added:   MAY  4,2000
    Sponsored by: INFECTIOUS DISEASES PROGRAM OFFICE, VAHQ
    Description:  This term represents positive test results on laboratory
                  tests for Hepatitis C virus antibody.  Add the local
                  hepatitis C virus antibody laboratory tests as findings for
                  this term. Include the CONDITION field to check for the
                  negative result value.
    Findings:

HEP C VIRUS ANTIBODY POSITIVE
    Term Type:    National
    Date Added:   MAY  4,2000
    Sponsored by: INFECTIOUS DISEASES PROGRAM OFFICE, VAHQ
    Description:  This term represents positive test results on laboratory
                  tests for Hepatitis C virus antibody. Add the local
                  hepatitis C virus antibody laboratory tests as findings for
                  this term. Include the CONDITION field to check for the
                  positive result value.
    Findings:

HEPATITIS C INFECTION
    Term Type:    National
    Date Added:   MAY  4,2000
    Sponsored by: INFECTIOUS DISEASES PROGRAM OFFICE, VAHQ
    Description:  This term represents patient diagnosed with Hepatitis C
                  infection.
    Findings:     VA-HEPATITIS C INFECTION

NO RISK FACTORS FOR HEP C
    Term Type:    National
    Date Added:   APR 24,2000
    Sponsored by: INFECTIOUS DISEASES PROGRAM OFFICE, VAHQ
    Description:  This term represents patient findings that indicate the
                  patient has no risk factors related to Hepatitis C. Add any
                  health factors or other finding items that your local site
                  uses to represent this term.
    Findings:     NO RISK FACTORS FOR HEP C
```

*List Reminder Terms, cont'd*

```
PREVIOUSLY ASSESSED HEP C RISK
    Term Type:    NATIONAL
    Date Added:   APR 24,2000
    Sponsored by: INFECTIOUS DISEASES PROGRAM OFFICE, VAHQ
    Description:  This term is available for patients who have previously had
                  an assessment completed at an institution outside the VA
                  system, at another VA site, or from historic records on
                  site that may be unavailable in the current VistA/CPRS
                  system (i.e. archived electronic information, or
                  information contained within a paper chart not in the
                  computer system).

                  This term is primarily used to resolve the National
                  Hepatitis C Risk Assessment Clinical Reminder.  However, if
                  the patient has had a previous positive test, previous
                  positive diagnosis for hepatitis C disease that has been
                  verified, but that the computer algorithm did not capture,
                  use one of this terms findings (health factor, education
                  topic,...) to resolve the Clinical Reminder. Further, you
                  will be given the opportunity to place a Free text comment
                  on where and when this previous assessment occurred and
                  what criteria (i.e. lab test, diagnosis) were used.  For
                  example, if you choose this option, you could then type
                  into the free text section ("Previous positive Hepatitis C
                  antibody test at St. X hospital in Local City, State on
                  March 2000").
  Findings:     PREV POSITIVE TEST FOR HEP C

RISK FACTOR FOR HEPATITIS C
    Term Type:    National
    Date Added:   APR 24,2000
    Sponsored by: INFECTIOUS DISEASES PROGRAM OFFICE, VAHQ
    Description:  This term represents findings that indicate the patient has
                  risk factors for Hepatitis C. Add any health factors or
                  other finding items that your local site uses to represent
                  this term.
    Findings:     RISK FACTOR FOR HEPATITIS C
```

### Inquire about Reminder Term (TI)

This option lets you display the contents of a reminder term in an easy-to-read format.

```
Select Reminder Term Management Option: TI  Inquire about Reminder Term
Select Reminder Term: PREVIOUSLY ASSESSED HEP C RISK    NATIONAL
         ...OK? Yes// <Enter>  (Yes)

DEVICE: <Enter>  ANYWHERE    Right Margin: 80// <Enter>
```

```
REMINDER TERM INQUIRY                          Oct 30, 2000 9:49:47 am  Page 1
------------------------------------------------------------------------------

PREVIOUSLY ASSESSED HEP C RISK                                    No.3
------------------------------------------------------------------------
Term Type:               NATIONAL
Sponsor:                 INFECTIOUS DISEASES PROGRAM OFFICE, VAHQ
Date Created:            APR 24,2000
Last Modified:           SEP 12,2000

Description:
    This term is available for patients who have previously had an assessment
    completed at an institution outside the VA system, at another VA site, or
    from historic records on site that may be unavailable in the current
    VistA/CPRS system (i.e. archived electronic information, or information
    contained within a paper chart not in the computer system).

    This term is primarily used to resolve the National Hepatitis C Risk
    Assessment Clinical Reminder.  However, if the patient has had a previous
    positive test, previous positive diagnosis for hepatitis C disease that
    has been verified, but that the computer algorithm did not capture, use
    one of this terms findings (health factor, education topic,...) to
    resolve the Clinical Reminder. Further, you will be given the opportunity
    to place a Free text comment on where and when this previous assessment
    occurred and what criteria (i.e. lab test, diagnosis) were used.  For
    example, if you choose this option, you could then type into the free
    text section ("Previous positive Hepatitis C antibody test at St. X
    hospital in Local City, State on March 2000").

Findings:

                  Finding Item:  PREV POSITIVE TEST FOR HEP C  (FI(1)=HF(71))
                  Finding Type:  HEALTH FACTOR



Select Reminder Term:  <Enter>
```

### Reminder Term Edit (TE)

You can edit terms or add new ones with this option. If the term is National, you can enter new Findings Items, but can't edit other fields. You can edit any fields for Local terms.

**Reminder Term Edit Example**
**Mapping the local term, HEP B SURFACE Ag, to the National term, HBs**

```
Select Reminder Term Management Option: TE Reminder Term Edit
Select Reminder Term: HBs
         ...OK? Yes// <Enter>  (Yes)

SPONSOR: INFECTIOUS DISEASES PO, VAHQ// <Enter>
DATE ADDED: APR 24,2000// <Enter>
DESCRIPTION:
  1> This term represents laboratory tests for HBs Ag positive. Another name
  2> for this is Hepatitis B surface antigen positive. Enter findings from the
  3> laboratory test file that are used locally to represent this term. Use the
  4> CONDITION field to clearly identify the positive results. e.g., I
  5> (V["positive")!(V="+")
EDIT Option: <Enter>

Select FINDING ITEM: HEP B SURFACE Ag
  FINDING ITEM: HEP B SURFACE Ag// <Enter>
  EFFECTIVE PERIOD: <Enter>
  USE INACTIVE PROBLEMS: YES
  WITHIN CATEGORY RANK: <Enter>
  CONDITION: I (V["POS")!(V="+")
  MH SCALE: <Enter>
Select FINDING ITEM: <Enter>
Select Reminder Term: <Enter>
```

This is the local finding that is mapped to the national term, HBs

### Copy Reminder Term (TC)

This option lets you copy an existing reminder term into a new one. The new term must have a unique name.

```
Select Reminder Term Management Option: TC  Copy Reminder Term
Select the reminder term to copy: EDUTERM
   Reminder term to copy: EDUTERM
         ...OK? Yes// <Enter>  (Yes)
PLEASE ENTER A UNIQUE NAME: SLC EDUTERM
The original reminder term EDUTERM has been copied into SLC EDUTERM.
Do you want to edit it now? YES
NAME: SLC EDUTERM// <Enter>
.
.
.
```

*If you choose to edit the copied term, the sequence of prompts is the same as those shown under Reminder Term Edit, shown on the previous pages.*

### Exported Reminder Terms

```
   ALANINE AMINO (ALT) (SGPT)           NATIONAL
   BILIRUBIN                            NATIONAL
   DECLINED HEP C RISK ASSESSMENT       NATIONAL
   HAV Ab positive                      NATIONAL
   HAV IgG positive                     NATIONAL
   HAV IgM Ab positive                  NATIONAL
   HBc Ab IgM positive                  NATIONAL
   HBe Ag positive                      NATIONAL
   HBs Ab positive                      NATIONAL
   HBs Ag positive                      NATIONAL
   HEP C VIRUS ANTIBODY NEGATIVE        NATIONAL
   HEP C VIRUS ANTIBODY POSITIVE        NATIONAL
   HEPATITIS C INFECTION                NATIONAL
   INTERFERON ALFA-2A                   NATIONAL
   INTERFERON ALFA-2B                   NATIONAL
   INTERFERON ALFA-2B/RIBAVIRIN         NATIONAL
   INTERFERON ALFA-3N                   NATIONAL
   INTERFERON ALFACON-1                 NATIONAL
   INTERFERON BETA-1A                   NATIONAL
   INTERFERON BETA-1B                   NATIONAL
   NO RISK FACTORS FOR HEP C            NATIONAL
   PREVIOUSLY ASSESSED HEP C RISK       NATIONAL
   RIBAVIRIN                            NATIONAL
   RISK FACTOR FOR HEPATITIS C          NATIONAL
   TRANSFERASE (AST) (SGOT)             NATIONAL
```

## Computed Findings

When none of the standard finding types will work, sites can create a computed finding.

A computed finding is an M routine that takes the following arguments (DFN, TEST, DATE,VALUE, TEXT).

The computed finding must be entered into the REMINDER COMPUTED FINDING file #811.4 before it can be used as a finding in a reminder definition.

A number of computed findings are distributed by the Clinical Reminders package. All of them were written to be used with the CONDITION field. This will allow you to create findings that are very specific. For example, using the BMI computed finding you can create a finding this is true only for patients with a BMI that is greater than or equal to 25.

There are two steps in creating a computed finding: 1) Writing an M routine and 2) entering the routine into the REMINDER COMPUTED FINDINGS file (#811.4). After the computed finding has been created, it can be used as a finding in a reminder definition.

NOTE: Only programmers who have "@" access can actually write the routine and enter it into the REMINDER COMPUTED FINDINGS file. Once it is in the file, Reminders Managers can use the computed finding in reminder definitions.

### Steps to Create a Computed finding

#### 1. Write an M routine.

The routine takes the following arguments: (DFN, TEST,DATE,VALUE,TEXT). DFN is the patient and will be set when the computed finding routine is called. The following variables should be set by the computed finding routine.

- TEST is the logical value of the FINDING. Set to 1 for true and 0 for false.
- DATE is the date of the finding in FileMan format. Set it to null if the finding is false.
- VALUE is a value for the finding to be used by the CONDITION field. Setting this is optional.
- TEXT is text to be displayed in the Clinical Maintenance output. Setting this is optional.

Whenever you create a computed finding, make sure that you “new” all the variables you use, to avoid strange side-effects.

**2. Make an entry in the REMINDER COMPUTED FINDINGS file (#811.4).**

File #811.4 contains a combination of nationally distributed and local entries. Nationally distributed entry names are prefixed with VA-. Local entry names can't start with VA-.

Complete each of these four fields:

NAME (.01 field) - this is the name of the computed finding. When a computed finding is added as a finding to a reminder definition, it is done using NAME. For example, type CF.VA-BMI to add the exported VA-BMI computed finding to your reminder definition.

ROUTINE (.02 field) - this is the name of the MUMPS routine.

ENTRY (.03 field) - this is the entry point in the MUMPS routine.

PRINT NAME (.04 field) - this will be displayed on the Clinical Maintenance component as the name of the computed finding. If it is blank, NAME will be used.

**Examples**

**BMI**

```
NAME: VA-BMI                              ROUTINE: PXRMBMI
 ENTRY POINT: BMI                        PRINT NAME: BMI
 DESCRIPTION:   The VA-BMI computed finding calculates the patient's body
mass index.  The value returned which can be used in the CONDITION field of
the findings is the body mass index value.

An example of using the VA-BMI computed finding is as follows: 1)  Create a
finding in a reminder that is the VA-BMI computed finding.  2)  Add logic
in the CONDITION field to check for a particular BMI value: "I V>25" 3)
This finding will be evaluated to true for patients with a BMI that is
greater than 25.
```

**Test for whether patient is an inpatient**

- If you want it to be true, set TEST to 1.
- Set the DATE="" when TEST=0 and set DATE to the date of the finding when TEST=1
- Set VALUE to a value that can be tested against in the CONDITION field.
- TEXT just goes back as additional info in the Clinical Maintenance view.

So, if you made one that was testing for whether or not your patient was an inpatient, it might look like this:

```
INP(DFN,TEST,DATE,VALUE,TEXT)   ;
       N VAIN
       D INP^VADPT
       I +$P(VAIN(7),"^") S TEST=1,DATE=$P(VAIN(7),"^")
       E   S TEST=0,DATE=""
       D KVA^VADPT
       Q
```

### Reminder Computed Findings Menu

The options on this menu provide tools for managing computed findings used in clinical reminders.

| Synonym | Option | Option Name | Description |
|---|---|---|---|
| CFL | Reminder Computed Finding List | PXRM COMPUTED FINDING LIST | This option lists the computed findings that are defined at a site. |
| CFE | Reminder Computed Finding Edit | PXRM COMPUTED FINDING EDIT | This option provides for editing of computed finding entries in the REMINDER COMPUTED FINDINGS file. To use this option, you must have programmer access. |

### Reminder Computed Finding List (CFL)

```
   CFL    Reminder Computed Finding List
   CFE    Reminder Computed Finding Edit

Select Reminder Computed Finding Management Option: CFL  Reminder Computed Finding
List
DEVICE: <Enter>  ANYWHERE    Right Margin: 80// <Enter>
REMINDER COMPUTED FINDING LIST



                                                        ENTRY
NAME                           PRINT NAME               POINT    ROUTINE
-------------------------------------------------------------------------
VA-BMI                         BMI                      BMI      PXRMBMI
VA-DATE OF BIRTH               Date of Birth            DOB      PXRMPDEM
VA-DATE OF DEATH               Date of Death            DOD      PXRMPDEM
VA-PRIMARY CARE PROVIDER       PCMM Primary Care Provider PROVIDER PXRMPCIN
VA-PRIMARY CARE TEAM           PCMM Primary Care Team   TEAM     PXRMPCIN
VA-RACE                        Race                     RACE     PXRMPDEM


Press RETURN to continue... <Enter>


   CFL    Reminder Computed Finding List
   CFE    Reminder Computed Finding Edit
```

# Chapter 2: Testing Reminder Definitions

### Reminder Test Option

Before a new or modified reminder is put into production, it should be thoroughly tested. The Reminder Test option provides a convenient tool that can be used as an aid in setting up new reminders and tracking down problems with existing ones. It lets you run a reminder without going through CPRS or Health Summary.

The output from this option provides a view of the internal workings of the clinical reminders software and allows you to see what happened as the reminder was evaluated. Errors and warnings that are not always seen on the Health Summary are displayed here. When setting up a reminder, it's a good idea to have test patients with known clinical data such as examinations, immunizations, ICDs, CPTs, etc., that are pertinent to the reminder being developed. Using this option to run the reminder for test patients allows you to see if the reminder operates as expected.
You should have patients who are in the cohort and who are not in the cohort. For patients who are in the cohort, you should have some who have the reminder resolved and some who do not.

It is very useful to have the output from the Reminder Inquiry option available when using the test option. Here is the inquiry for the VA-DIABETIC EYE EXAM.

```
REMINDER DEFINITION INQUIRY                    Feb 22, 2001 11:18:56 am  Page 1
-------------------------------------------------------------------------------

VA-DIABETIC EYE EXAM              No.  17
------------------------------------------

Print Name:                   Diabetic Eye Exam

Related VA-* Reminder:

Reminder Dialog:

Priority:

Reminder Description:
    Patients with the VA-DIABETES taxonomy should have a diabetic eye exam
    done yearly.

Technical Description:
    This reminder is based on the Diabetic Eye Exam reminder from the New
    York VAMC which was designed to meet the guidelines defined by the PACT
    panel.  Additional input came from the Saginaw VAMC.


Baseline Frequency:

      Do In Advance Time Frame:  Do if DUE within 1 month
                  Sex Specific:
                 Ignore on N/A:
       Frequency for Age Range:  0Y - Not Indicated for all ages
```

```
                   Match Text:
                No Match Text:

Findings:

                Finding Item: DIABETIC EYE EXAM  (FI(1)=EX(3))
                Finding Type: EXAM
     Use in Resolution Logic: OR

                Finding Item: VA-DIABETES  (FI(2)=TX(28))
                Finding Type: REMINDER TAXONOMY
          Match Frequency/Age: 1 year for all ages
                   Found Text: Diabetic eye exam required annually for all
                               diabetic patients.  with HTN.
              Not Found Text: No history of diabetes on file.
  Use in Patient Cohort Logic: AND

General Patient Cohort Found Text:

General Patient Cohort Not Found Text:

General Resolution Found Text:

General Resolution Not Found Text:

Default PATIENT COHORT LOGIC to see if the Reminder applies to a patient:
     (SEX)&(AGE)&FI(2)

Expanded Patient Cohort Logic:
     (SEX)&(AGE)&FI(VA-DIABETES)

Default RESOLUTION LOGIC defines findings that resolve the Reminder:
     FI(1)

Expanded Resolution Logic:
     FI(DIABETIC EYE EXAM)


Web Sites:
```

### Test option output for this reminder

```
Select Reminder Managers Menu Option: RT  Reminder Test
Select Patient: BABBITT,THEODORE        5-19-46    448668832     YES     SC V
ETERAN
 Enrollment Priority:           Category: IN PROCESS    End Date:

Select Reminder: VA-DIABETIC EYE EXAM
The elements of the FIEV array are:
FIEV(1)=1
FIEV(1,"DATE")=3010110E
FIEV(1,"FINDING")=3;AUTTEXAM(
FIEV(1,"RESULT")=
FIEV(1,"SOURCE")=129;AUPNVXAM(
FIEV(1,"VALUE")=
FIEV(1,"VIEN")=4647
```

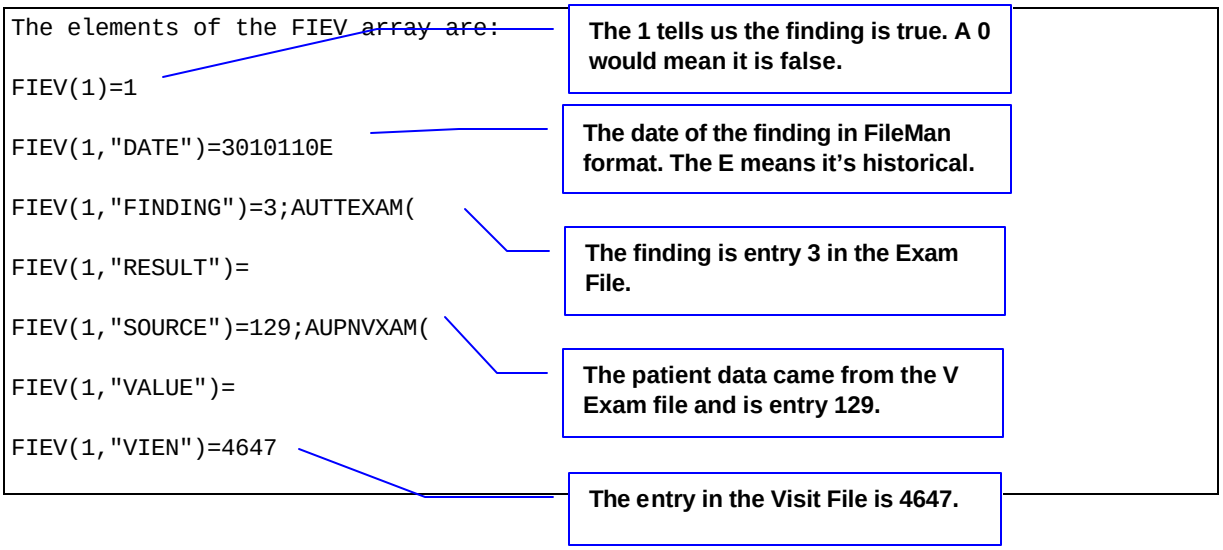
```
FIEV(2)=1
FIEV(2,"CODEP")=851
FIEV(2,"DATE")=3000317.08
FIEV(2,"FINDING")=28;PXD(811.2,
FIEV(2,"SOURCE")=2082;AUPNVPOV
FIEV(2,"VIEN")=3787
FIEV("DFN")=54
FIEV("PATIENT AGE")=48

The elements of the ^TMP(PXRMID,$J) array are:
^TMP(PXRMID,$J,17,"EXAM DIABETIC EYE EXAM")=01/10/2001 (E) Exam: DIABETIC EYE EX
AM
^TMP(PXRMID,$J,17,"FINDING 2_FOUNDB")=Diabetic eye exam required annually for al
l diabetic patients.  with
^TMP(PXRMID,$J,17,"FINDING 2_FOUNDC")=HTN.
^TMP(PXRMID,$J,17,"ICD9VPOV 250.01","CODE")=250.01
^TMP(PXRMID,$J,17,"ICD9VPOV 250.01","DATE")=3000317.08
^TMP(PXRMID,$J,17,"ICD9VPOV 250.01","DIAG")=DIABETES MELLI W/0 COMP TYP I
^TMP(PXRMID,$J,17,"ICD9VPOV 250.01","PN")=DIABETES MELLITUS WITHOUT MENTION OF C
OMPLICATION; TYPE 1 (IDDM) (JUVENILE TYPE), NOT STATED AS UNCONTROLLED
^TMP(PXRMID,$J,17,"PATIENT COHORT LOGIC")=1^(SEX)&(AGE)&FI(2)^(1)&(1)&1
^TMP(PXRMID,$J,17,"REMINDER NAME")=Diabetic Eye Exam
^TMP(PXRMID,$J,17,"RESOLUTION LOGIC")=1^(0)!FI(1)^(0)!1
^TMP(PXRMID,$J,17,"zFREQARNG")=Due every 1 year for all ages

The elements of the ^TMP("PXRHM",$J) array are:
^TMP("PXRHM",$J,17,"Diabetic Eye Exam")=RESOLVED^3020110^3010110
^TMP("PXRHM",$J,17,"Diabetic Eye Exam","TXT",1)=
^TMP("PXRHM",$J,17,"Diabetic Eye Exam","TXT",2)=Applicable: Due every 1 year for
 all ages within cohort.
^TMP("PXRHM",$J,17,"Diabetic Eye Exam","TXT",3)=03/17/2000 Encounter Diagnosis:
250.01 DIABETES MELLI W/0 COMP TYP I
^TMP("PXRHM",$J,17,"Diabetic Eye Exam","TXT",4)=  Prov. Narr. - DIABETES MELLITU
S WITHOUT MENTION OF COMPLICATION;
^TMP("PXRHM",$J,17,"Diabetic Eye Exam","TXT",5)=TYPE 1 (IDDM) (JUVENILE TYPE), N
OT STATED AS UNCONTROLLED
^TMP("PXRHM",$J,17,"Diabetic Eye Exam","TXT",6)=Diabetic eye exam required annua
lly for all diabetic patients.  with
^TMP("PXRHM",$J,17,"Diabetic Eye Exam","TXT",7)=HTN.
^TMP("PXRHM",$J,17,"Diabetic Eye Exam","TXT",8)=
^TMP("PXRHM",$J,17,"Diabetic Eye Exam","TXT",9)=Resolution: Last done 01/10/2001
^TMP("PXRHM",$J,17,"Diabetic Eye Exam","TXT",10)=01/10/2001 (E) Exam: DIABETIC EYE
EXAM
```

There are three sections in this output. We will go through them individually.

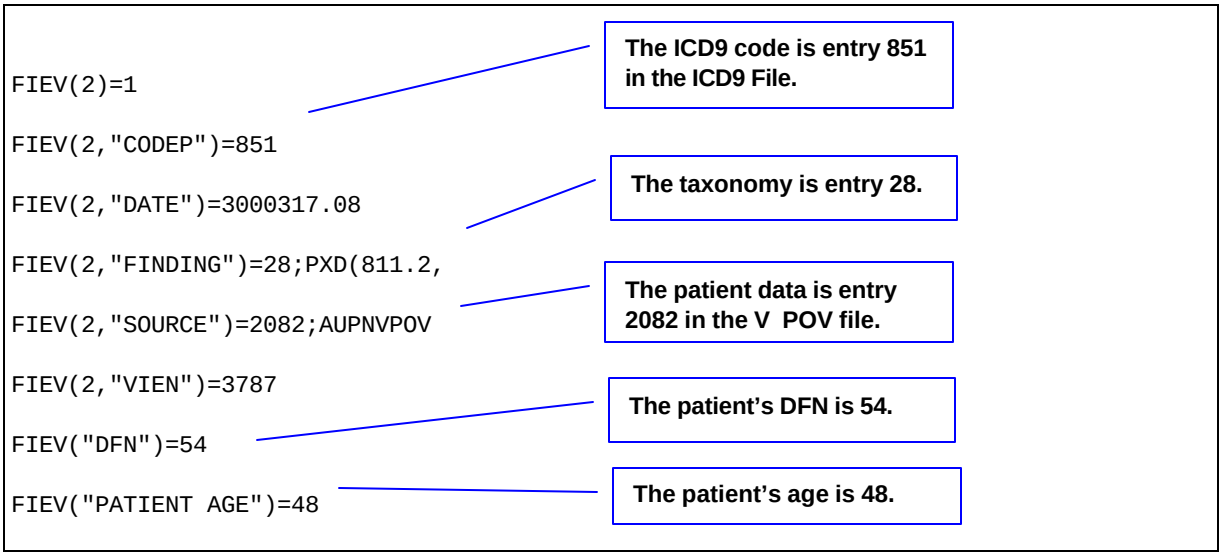
The first section is the FIEV array, which corresponds to the findings in the reminder definition. If we look back at our definition inquiry, we see there are two findings in this reminder.

1. the exam DIABETIC EYE EXAM
2. the taxonomy VA-DIABETES.

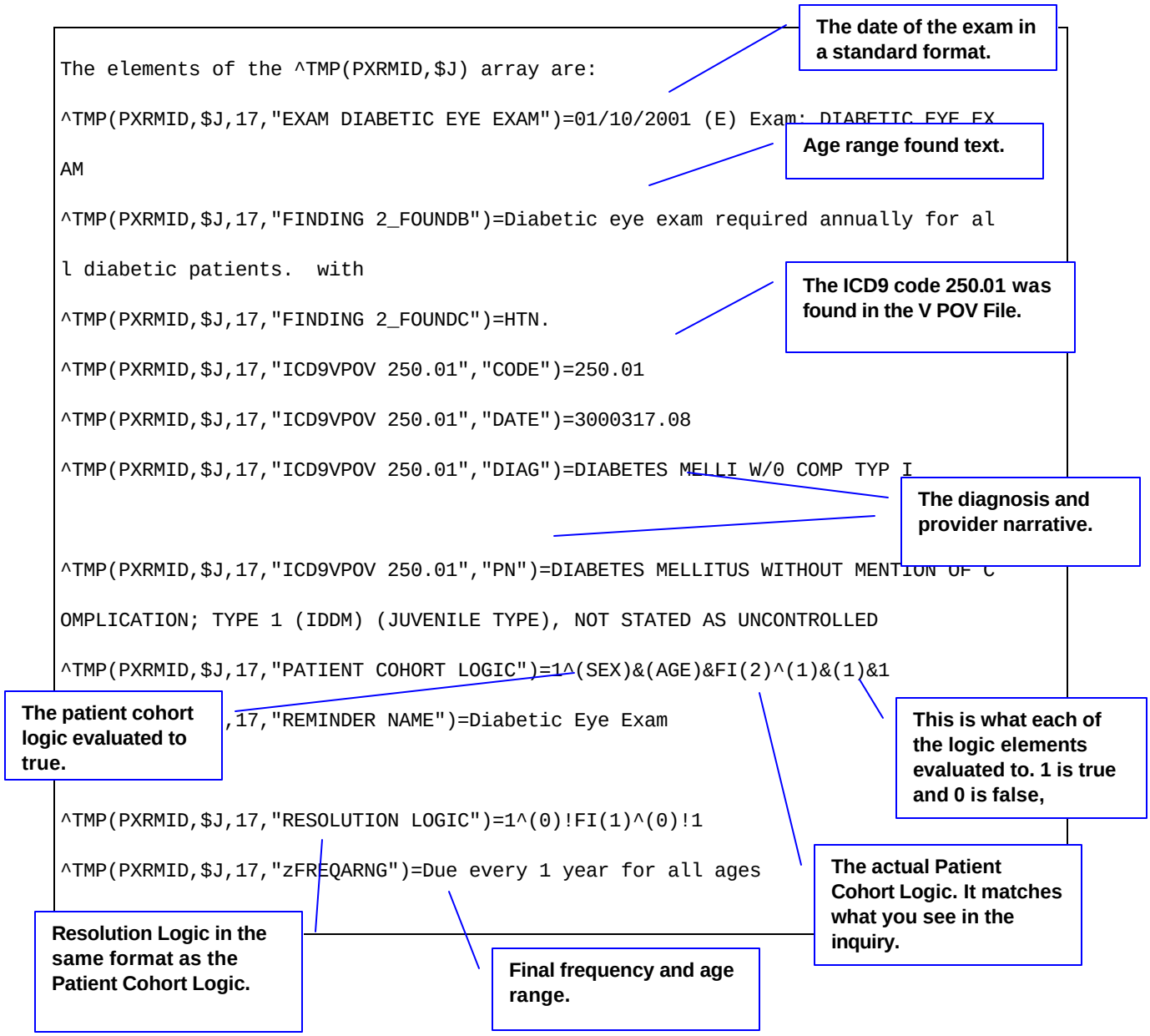
**The entries in FIEV(1) show us what was found for the eye exam:**




**The entries in FIEV(2) show us what was found for the taxonomy:**



**The next section gives us additional information:**



**The final section shows the Clinical Maintenance information that is returned to the calling application, for example Health Summary or CPRS:**

**This is the status, the due date, and the last done date. The rest of the lines are in their final format.**

```
The elements of the ^TMP("PXRHM",$J) array are:
^TMP("PXRHM",$J,17,"Diabetic Eye Exam")=RESOLVED^3020110^3010110
^TMP("PXRHM",$J,17,"Diabetic Eye Exam","TXT",1)=
^TMP("PXRHM",$J,17,"Diabetic Eye Exam","TXT",2)=Applicable: Due every 1 year for
 all ages within cohort.
^TMP("PXRHM",$J,17,"Diabetic Eye Exam","TXT",3)=03/17/2000 Encounter Diagnosis:
250.01 DIABETES MELLI W/0 COMP TYP I
^TMP("PXRHM",$J,17,"Diabetic Eye Exam","TXT",4)=  Prov. Narr. - DIABETES MELLITU
S WITHOUT MENTION OF COMPLICATION;
^TMP("PXRHM",$J,17,"Diabetic Eye Exam","TXT",5)=TYPE 1 (IDDM) (JUVENILE TYPE), N
OT STATED AS UNCONTROLLED
^TMP("PXRHM",$J,17,"Diabetic Eye Exam","TXT",6)=Diabetic eye exam required annually for
all diabetic patients.  with
^TMP("PXRHM",$J,17,"Diabetic Eye Exam","TXT",7)=HTN.
^TMP("PXRHM",$J,17,"Diabetic Eye Exam","TXT",8)=
^TMP("PXRHM",$J,17,"Diabetic Eye Exam","TXT",9)=Resolution: Last done 01/10/2001
^TMP("PXRHM",$J,17,"Diabetic Eye Exam","TXT",10)=01/10/2001 (E) Exam: DIABETIC EYE EXAM
```

**Testing in Health Summary**

The following are steps for testing reminders in Health Summary:

1. Activate Clinical Reminders components in the Health Summary Component file. Create a Health Summary Type for testing new reminders being defined.
2. Add the Maintenance and Reminder components to the reminder Health Summary Type.
3. Select the reminder definition(s) to be tested in the selection items prompt from Clinical Maintenance and Clinical Reminder components.
4. If you can't select the clinical reminder components for the Health Summary, the components must be enabled for use, and the "Rebuild Ad Hoc Health Summary Type" option must be run.
5. Use the Print Health Summary Menu, "Patient Health Summary" option to begin testing the component for individual patients.
6. Find patients with data in **V*IST*A** that should match the reminder definitions, as well as some that won't have data matches.
7. Assess the reminder results: Are the age range and frequency evaluation working? Are the target findings found, taxonomy findings found, and health factors found presenting the actual data found for patients that you know may have some results? When there is no data found, are the no-match comments being displayed (if defined)? Are pertinent negative alterations of the age and frequency criteria working as expected based on taxonomy or health factor findings?

**Reminder Evaluation in CPRS**

Clinical Reminders Managers or clinicians can use the Reminder evaluation utility that's available in the CPRS GUI to test reminders and dialogs as they are created.

HINT: Keeping one or more terminal emulator (e.g., KEA) screens open with the List Manager Reminder Management menu, along with an open CPRS window, is an effective way to work as you are creating working reminders and dialogs, to ensure that your definitions are appropriate. You can use both the Evaluate Reminder and Refresh options on the Action (or right-click) menu to see the effects of your definitions.

There are two forms of the Reminder Evaluation option, for use before and after processing reminders.

1. **Evaluate Reminder**

   Before you process a reminder, you can select this option to see if specific reminders in the Other category should be Applicable or should be Due for the selected patient.

   For example, in a diabetic clinic, you might see a patient around flu season and evaluate the flu shot reminder in the other category to see if a flu shot is needed.

   To evaluate reminders, right-click in a tree view (from the Reminders Button or Drawer) and select Evaluate Reminder

2. **Evaluate Processed Reminders**

   After you have processed a reminder, you can use this option to see if your actions during the encounter satisfied the reminder.

   Satisfying a reminder may require more than you originally think. You may want to evaluate the reminders after you have processed them to make sure you have satisfied the reminder.

   NOTE: PCE data may take a few minutes to be correctly recorded. Please wait a few minutes after processing a reminder before evaluating it again to ensure that it was satisfied.

   To evaluate processed reminders, choose Action in the Available Reminders window, and then click on Evaluate Processed Reminders.

# Chapter 3: Activating Clinical Reminders in CPRS

## Setting Clinical Reminders Parameters

Once you are certain the reminder works as intended, activate the reminder and set it up in one or more of the following applications:

1. Add it to a health summary
2. Add it to an encounter form
3. Activate CPRS parameters:
   - Add it to the CPRS GUI Cover Sheet Reminders List
   - Add it to CPRS Lookup Categories
   - Activate the GUI Resolution parameter
   - Activate the Mental Health dialog resolution parameter

### Activate/Inactivate Reminders (RA)

Use this option to make individual reminders active or inactive in CPRS, Health Summary, and Encounter Forms.

```
Select Reminder Management Option: RA  Activate/Inactivate Reminders
Select REMINDER DEFINITION NAME: ??
 Answer with REMINDER DEFINITION NAME, or REMINDER TYPE, or
     PRINT NAME
Choose from:
   CHOLESTEROL SCREEN (F)
   LOCAL FOBT
   VA-*BREAST CANCER SCREEN
   VA-*CERVICAL CANCER SCREEN
   VA-*CHOLESTEROL SCREEN (F)
   VA-*CHOLESTEROL SCREEN (M)
   VA-*COLORECTAL CANCER SCREEN (
   VA-*COLORECTAL CANCER SCREEN (
   VA-*FITNESS AND EXERCISE SCREE
   VA-*HYPERTENSION SCREEN
   VA-*INFLUENZA IMMUNIZATION
   VA-*PNEUMOCOCCAL VACCINE
   VA-*PROBLEM DRINKING SCREEN
Select REMINDER DEFINITION NAME: CHOLESTEROL SCREEN (F)
INACTIVE FLAG: ?
     Enter "1" to inactivate the reminder item.
     Choose from:
       1        INACTIVE
INACTIVE FLAG: 1
```

### CPRS Reminder Configuration Menu

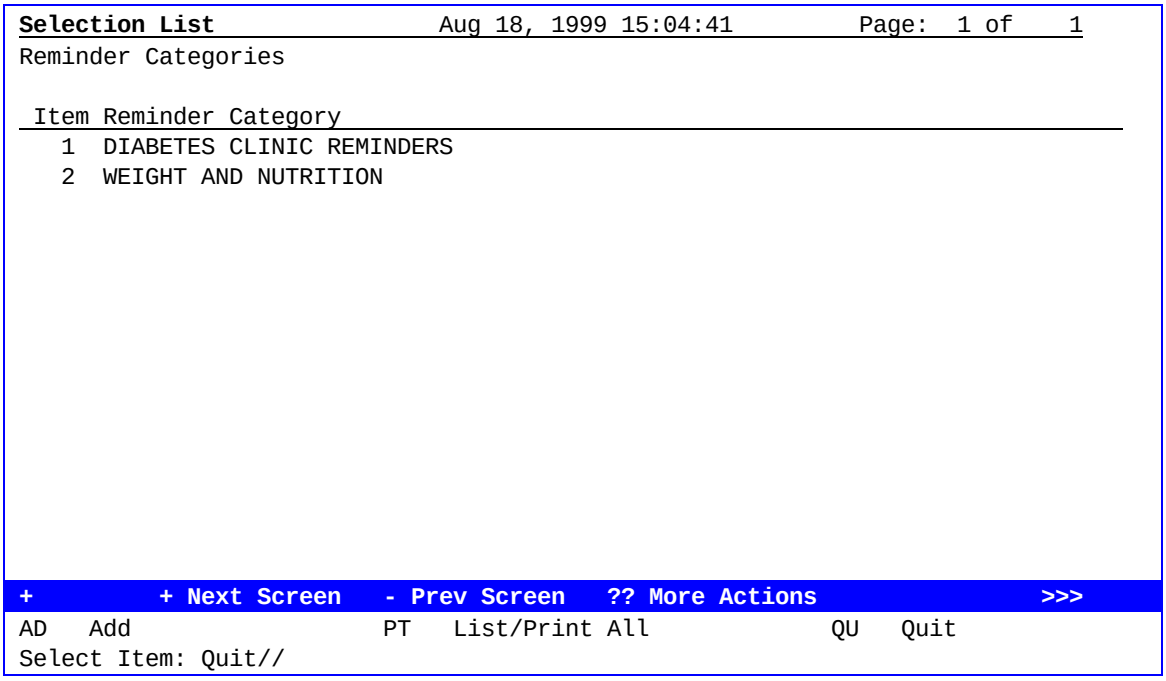
The options to maintain reminder categories and to implement reminders within CPRS are on this menu.

| Syno-nym | Option | Option Name | Description |
|---|---|---|---|
| CA | Add/Edit Reminder Categories | PXRM CATEGORY EDIT/INQUIRE | Reminder categories used by CPRS GUI may be added or changed. A reminder category may contain a list of reminders and/or other sub-categories. |
| CL | CPRS Lookup Categories | PXRM CPRS LOOKUP CATEGORIES | Reminder Categories to be displayed in the Other folder of the note tab are entered here. |
| CS | CPRS Cover Sheet Reminder List | PXRM CPRS COVER SHEET LIST | Use this option to enter reminders that will be displayed on the CPRS cover sheet. |
| PN | Progress Note Headers | PXRM PN HEADER | The header inserted into the progress note when processing a reminder may be modified for user, location, or service. The default header is Clinical Reminders Activity. |
| MH | Mental Health Dialogs Active | PXRM MENTAL HEALTH ACTIVE | This option allows a user to modify the "Mental Health Active" CPRS parameter. This parameter defines the level to activate to use Mental Health dialogs for reminder resolution processing. When activated for a level, mental health tests in a reminder dialog can be performed. |
| RA | Reminder GUI Resolution Active | PXRM GUI REMINDERS ACTIVE | This option allows a user to modify the "Reminders Active" CPRS parameter. You can activate GUI reminder resolution processing at a user, division, or system level. When activated for a level, a reminders drawer is available on the notes tab for selecting and processing reminders. |

## Add/Edit Reminder Categories (CA)

Reminder categories are maintained with this option. A category defines a group of reminders and may include other sub-categories. To activate categories so that they appear in the reminders window in CPRS (under OTHER), use the option CPRS Lookup Categories.

The first screen in this option displays the existing reminder categories:




### Actions

**AD** Add a new reminder category.
**PT** List or print all reminder categories
**QU** Return to menu
**#** Enter the item number to be edited.

If you select a reminder category, a description and related reminders are displayed. You can then edit the category

```
Edit List                    Apr 18, 2000 15:04:41          Page:    1 of  1
Reminder Category Name: SLC DEMO CATEGORY

Category Description:
    This is the text for that summarizes what this category represents. A
    category may contain reminders and/or a number of sub-categories.

Sequence:  1   Reminder: SLC CANCER SCREEN
Sequence:  2   Reminder: SLC DIABETIC EYE EXAM
Sequence:  3   Reminder: SLC LIFE STYLE EDUCATION
Sequence:  4   Reminder: SLC PNEUMOCOCCAL VACCINE
Sequence: 90   Reminder: SLC DIABETIC FOOT CARE ED
Sequence: 97   Reminder: 571 TEST
Sequence: 98   Reminder: ANTRY'S DIABETIC REVIEW
Sequence: 99   Reminder: MHTEST

Sub-category: SUBSTANCE ABUSE
     Sequence:  1   Reminder: TOBACCO EDUCATION
     Sequence:  2   Reminder: TOBACCO USE SCREEN
     Sequence:  3   Reminder: VA-*PROBLEM DRINKING SCREEN
+         + Next Screen   - Prev Screen   ?? More Actions                >>>
ED   Edit                    INQ   Inquiry/Print               QU   Quit
Select Action: Quit//ED
```

**Actions**

**ED** Edit/Delete this reminder category

**INQ** List or print this reminder category

**QU** Return to previous screen.

## CPRS Lookup Categories (CL)

Enter the Reminder Categories that you wish to be displayed on the reminder tree section of the note tab. These will appear in the "Other" folder.

```
Select CPRS Reminder Configuration Menus Option: CL  CPRS Lookup Categories

Reminder Categories for Lookup may be set for the following:

     1   User          USR    [choose from NEW PERSON]
     2   Location      LOC    [choose from HOSPITAL LOCATION]
     3   Service       SRV    [choose from SERVICE/SECTION]
     4   Division      DIV    [ISC SALT LAKE]
     5   System        SYS    [DEVCUR.ISC-SLC.VA.GOV]
     6   Package       PKG    [CLINICAL REMINDERS]

Enter selection: 1  User   NEW PERSON
Select NEW PERSON NAME:  GREEN,JON     jg

------- Setting Reminder Categories for Lookup  for User: GREEN,JON -------
Select Display Sequence: ?


     Display Sequence                    Value
     ----------------                    -----
     1                                   SUBSTANCE ABUSE
     5                                   HEPATITIS C
     10                                  WEIGHT AND NUTRITION
     15                                  SLC REMINDER CATEGORY
     20                                  Usability Test Reminders


Select Display Sequence: 25
Are you adding 25 as a new Display Sequence? Yes//<Enter>   YES

Display Sequence: 25//  <Enter>  25
Reminder Category: ??

Choose from:
   Acute Pain
   Cancer Pain
   Chronic Pain
   HEPATITIS C
   JEREMY'S REMINDER CATEGORY
   Pain Management
   SLC REMINDER CATEGORY
   SUBSTANCE ABUSE
   USH POLICY
   Usability Test Reminders
   WEIGHT AND NUTRITION

Reminder Category: JON'S REMINDER CATEGORY
         ...OK? Yes// <Enter>  (Yes)

Select Display Sequence: <Enter>
```

### CPRS Cover Sheet Reminder List (CS)

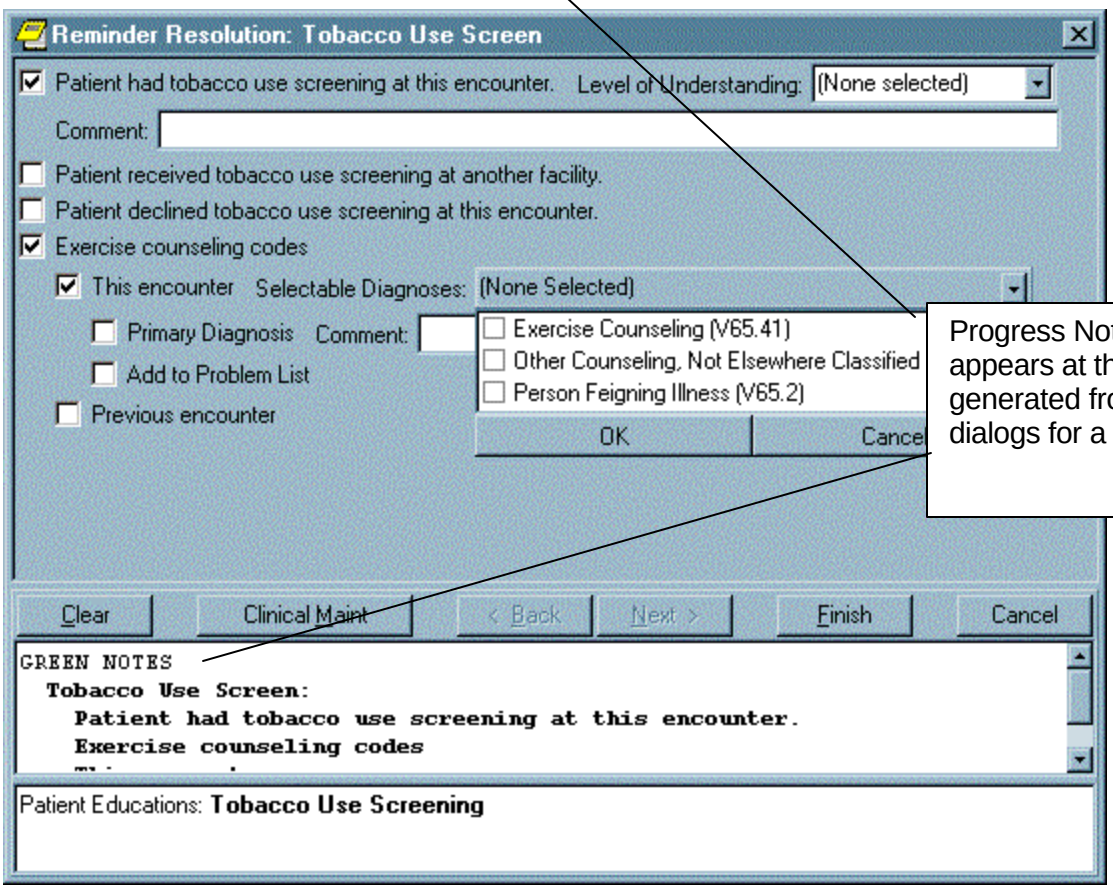
Use this option to enter reminders that will be displayed on the CPRS cover sheet.

```
Select CPRS Reminder Configuration Menus Option: CS  CPRS Cover Sheet Reminder List

Clinical Reminders for Search may be set for the following:

     1   User          USR    [choose from NEW PERSON]
     2   Location      LOC    [choose from HOSPITAL LOCATION]
     3   Service       SRV    [choose from SERVICE/SECTION]
     4   Division      DIV    [ISC SALT LAKE]
     5   System        SYS    [DEVCUR.ISC-SLC.VA.GOV]
     6   Package       PKG    [ORDER ENTRY/RESULTS REPORTING]

Enter selection: 1  User   NEW PERSON
Select NEW PERSON NAME: green,JON       jg

-------- Setting Clinical Reminders for Search  for User: GREEN,JON --------
Select Display Sequence: ?

     Display Sequence                    Value
     ----------------                    -----
     1                                   VA-DIABETIC FOOT CARE ED.
     2                                   VA-TOBACCO EDUCATION
     5                                   VA-*PNEUMOCOCCAL VACCINE
     10                                  VA-INFLUENZA VACCINE
     15                                  VA-*BREAST CANCER SCREEN
     25                                  TOBACCO USE SCREEN
     30                                  VA-*CHOLESTEROL SCREEN (M)
     35                                  VA-*COLORECTAL CANCER SCREEN (FOBT)
     40                                  VA-*HYPERTENSION SCREEN

Select Display Sequence: 20
Display Sequence: 20// <Enter>   20
Clinical Reminder:  MENTAL HEALTH TESTS
Select Display Sequence: <Enter>
```

## Progress Note Headers (PN)

The header inserted into the progress note when processing a reminder may be modified for user, location, or service. The default header is Clinical Reminders Activity.

```
Select CPRS Reminder Configuration Menus Option: PN  Progress Note Headers

Progress Note Header may be set for the following:

     1   User          USR    [choose from NEW PERSON]
     2   Location      LOC    [choose from HOSPITAL LOCATION]
     3   Service       SRV    [choose from SERVICE/SECTION]
     4   Division      DIV    [REGION 5]
     5   System        SYS    [DEVCUR.ISC-SLC.VA.GOV]
     6   Package       PKG    [CLINICAL REMINDERS]

Enter selection: 1  User   NEW PERSON
Select NEW PERSON NAME: GREEN,JON     jg

------------ Setting Progress Note Header  for User: GREEN,JON -------
PROGRESS NOTE HEADER: ?

This response can be free text.

PROGRESS NOTE HEADER: GREEN NOTES
```




Progress Note Header text appears at the top of all text generated from reminder dialogs for a given note.

### Reminder GUI Resolution Active (RA)

This option lets you activate GUI reminder resolution processing at a user, division, or system level. When activated, a reminders drawer is available on the notes tab for selecting and processing reminders.

```
Select CPRS Reminder Configuration Menus Option: RA  Reminder GUI Resolution Active

Reminders Active may be set for the following:

     1   User          USR    [choose from NEW PERSON]
     2   Division      DIV    [ISC SALT LAKE]
     3   System        SYS    [DEVCUR.ISC-SLC.VA.GOV]

Enter selection: 1  User   NEW PERSON
Select NEW PERSON NAME:  GREEN,JON     jg

-------------- Setting Reminders Active  for User: GREEN,JON --------------
REMINDERS ACTIVE: YES// <Enter>
```

### Setting up Clinical Reminders Components in Health Summary

Reminder items are added to health summary selection components for a given health summary type. When the health summary type is run, the Clinical Reminders software evaluates the patient's data and returns the results to the health summary for display.

Use options on the Health Summary Coordinator's Menu (on the Other Supporting Menus on the Clinical Reminders Manager Menu) to add Reminders components.

### Health Summary Reminder Components

*Reminders Due:* An **abbreviated** component indicating only **what is due now**.

Example of *Reminder Due* as displayed on a health summary:

```
                                --STATUS-- --DUE DATE--  --LAST DONE--
Advanced Directives Education     DUE NOW     DUE NOW       unknown
Alcohol Abuse Education           DUE NOW     DUE NOW       unknown
```

*Reminder Summary*: This component provides the status (Due Now, Due Soon, Resolved), next due date, and the last done date.

Example of *Reminder Summary* as displayed on a health summary:

```
                          --STATUS--   --DUE DATE--    --LAST DONE--
Mammogram                RESOLVED     03/01/2000        10/01/1998
Pap Smear                DUE NOW      DUE NOW           unknown
Diabetic Eye Exam        DUE NOW      DUE NOW           10/01/1999
```

*Reminder Maintenance:* This component provides:

- Details about what was found from searching the VistA clinical data.
- Text related to the findings found or not found (as defined in the reminder). This includes taxonomies (ICD or CPT codes), health factors, and test results related to the reminder and computed findings (e.g., Body Mass Index).
- Final frequency and age range used for the reminder.

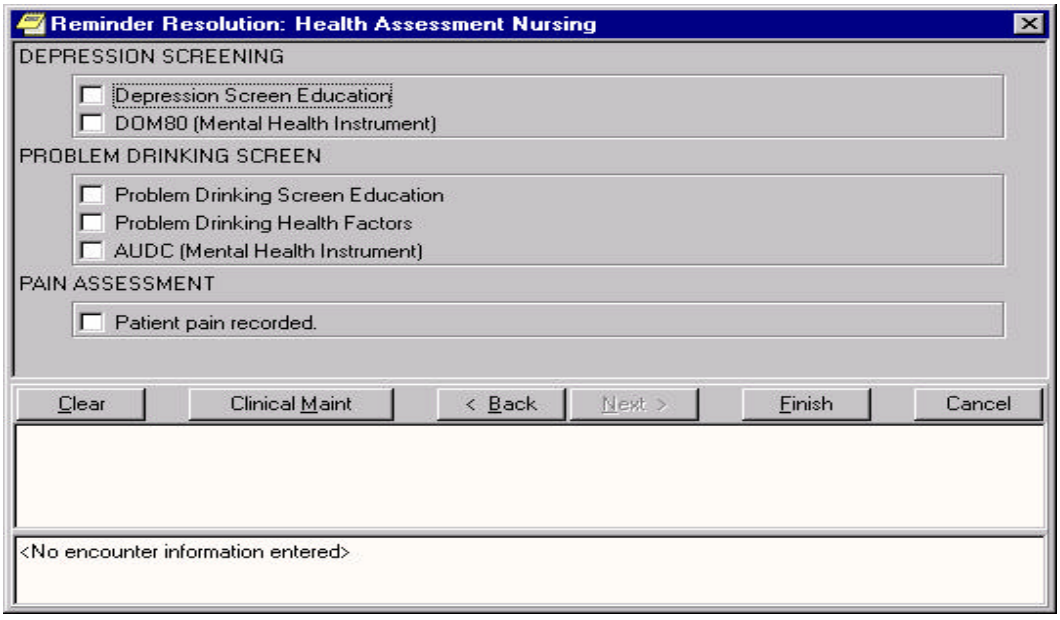
NOTE: Statuses include "DUE SOON," to allow you to process a reminder in advance, if convenient.

Example of Reminder Maintenance as displayed on a health summary:

```
------------------------- CM - Reminder Maintenance ----------------------
                                  --STATUS-- --DUE DATE--  --LAST DONE--
Fecal Occult Blood Test            DUE NOW     DUE NOW       unknown

     Applicable: Due every 1 year for ages 50 and older.
     No HX of colorectal cancer on file - presumed no HX.

Health Factor Test                 DUE NOW     DUE NOW       unknown

     Applicable: Due every 1 year for ages 40 to 60.
     Baseline set to 1Y for 40-60.
```

# Chapter 4: Creating Reminder Dialogs

### Example: A Reminder Dialog in CPRS




A Reminder dialog is a list of statements and associated findings that appear in a dialog box in the CPRS GUI, used to resolve a reminder. Dialogs are generated from a reminder definition or created manually.

Reminder dialogs must be defined and linked to reminders before clinicians can resolve reminders through CPRS. Dialog boxes appear when specific reminders are selected, with a list of checkbox items that have been defined as potential actions to satisfy the reminder.

### Dialog Creation Process

When you create your dialog, make a plan. Consider the following:

- What kinds of actions do you want to record (or in the terms of dialogs, what sentences do you want answered and how)?
- Do you want the dialog elements to satisfy the reminders?
- Do you want the dialog to trigger another reminder?

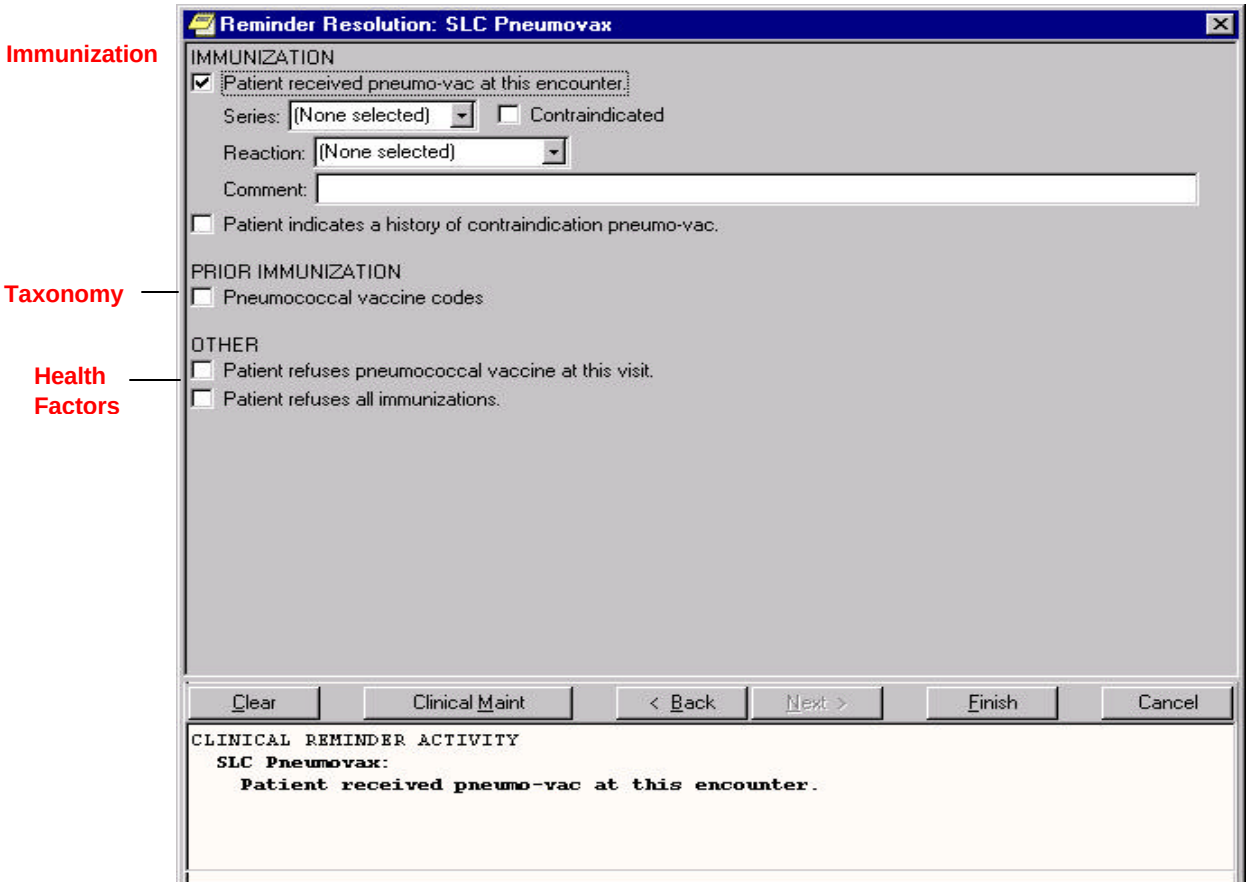
You can either autogenerate a dialog based on the criteria in the associated reminder or you can build the dialog from scratch. Autogenerating will create dialog elements or sentences for every criteria built into the reminder. You will need to edit the "generated" dialogs to include only those dialog elements that will satisfy the reminder. A step-by-step description is shown on the following pages.

*For further information, see the Clinical Reminders web page for more dialog examples.*

## Creating a Pneumococcal Vaccine Dialog

In the following pages, we describe how to create the dialog shown below.

### Example: SLC Pneumococcal Vaccine dialog as it appears in CPRS



**Steps to create the SLC Pneumococcal Vaccine Dialog**

The simplest way to create a dialog is to autogenerate one from the reminder definition, using the dialog parameters distributed with the reminder package.

***Autogeneration works as follows:***

a. When you select the action Autogenerate Dialog in the Reminder Dialog option, you are prompted, "GENERATE DIALOG AUTOMATICALLY?"

b. If you respond yes, then for each finding item on the reminder, the REMINDER FINDING TYPE PARAMETER file #801.45 is checked to see if there are any "enabled" resolution statuses for the finding type.

c. If an enabled resolution status exists, a dialog element (sentence) is added to the reminder dialog with sentences generated from the finding name, concatenated with prefix and suffix text.
Example: *Patient received* Pneumo-vac *at this encounter*

*Patient received* and *at this encounter* are the prefix and suffix Resolution Status text that is already in the file.

**Step 1.**
Decide which elements will appear in the reminder dialog. For example:

- Patient received pneumo-vac at this encounter.
- Patient indicates a history of contraindication pneumo-vac.
- Pneumococcal vaccine codes
- Patient Refuses Pneumococcal Vaccine
- Patient Refuses All Immunizations

The first three Elements will satisfy the reminder. The last two will make the reminder not applicable.

Elements may be added that don't affect the reminder. Such elements may have findings or may be text-only elements for display on the dialog screen or inclusion in the progress note.

**Step 2:**

Use the following Dialog Parameters options on the Dialog Management Menu to make sure all the elements are present and appropriately enabled or disabled. These are described on the next page.

- Health Factor Resolutions
- Finding Type Parameters
- Taxonomy Dialog Parameters (optional)

**Health Factor Resolutions**
A set of national codes is distributed with the reminder package:

- Done
- Done Elsewhere
- Contraindicated
- Patient Refused
- Ordered
- Other

Health Factor Resolutions must be entered for all the health factors on the reminder that should be included in the dialog. The AD option includes an action to select a reminder and then pass through all health factors in the reminder, allocating resolution statuses if needed.

Health factors are normally given the resolution status of OTHER.

**Finding Type Parameters**
The finding type parameters are distributed with the reminder package. These are the rules used to generate dialog elements (sentences) from the reminder definition. Different rules apply to different finding types. Immunizations generate three sentences for each finding:

- Immunization done
- Immunization done elsewhere
- Immunization contraindicated

Disable the finding parameters for the elements not required (in this case DONE ELSEWHERE) so that the dialog autogeneration will not include these sentences in the reminder dialog.

**Taxonomy Dialog Parameters**
Taxonomy dialog parameters contain lists of selectable procedure and diagnosis codes for each taxonomy. Installation of the Clinical Reminders package puts all codes in the taxonomy into the selectable list. The selectable codes may be modified, if required.

A dialog element for a taxonomy finding automatically includes multiple prompts:

- Taxonomy header
- Current Diagnosis/Procedure
- Historical Diagnosis/Procedure

The taxonomy dialog parameters contain the text for these prompts, which can be modified, if required, for individual taxonomies.

Taxonomy dialog parameters can also be modified when editing the reminder dialog after the autogeneration has been run.

***Creating a reminder dialog, cont'd***

**Step 3:**

Use the Reminder Dialog option to autogenerate the dialog.

a. Select DI from the Dialog Management Menu. A screen of reminders is displayed.
b. Select the VA-*Pneumococcal Vaccine reminder.
c. Use the AD action to autogenerate a reminder dialog with the same name as the reminder.
d. Make sure that the dialog is enabled (answer YES to the "ENABLE DIALOG" prompt).
e. Add, delete, change, or re-sequence dialog elements as required.
f. Modify progress note text, if required.

**Step 4:**

Add the reminder to CPRS. On the CPRS Reminder Configuration Menu, do the following:

a. Add the reminder to the CPRS Cover Sheet List for the appropriate level. The reminder will appear on the cover sheet if due or in the reminder drawer if due or applicable.

b. **OR** create a reminder category containing the reminder and add the reminder category to the CPRS Lookup Categories at the appropriate level.

c. Activate dialogs with the Reminder GUI Resolution Active and Mental Health Dialogs Active options.

For testing purposes, it is probably best to set up reminders and categories at the user level.

**Example: Autogenerating Dialog For Pneumococcal Vaccine Reminder**

**1. Select the option DI Reminder Dialog from the Dialog Management menu:**

```
Select Reminder Managers Menu Option: DM  Dialog Management

   DP     Dialog Parameters ...
   DI     Reminder Dialogs

Select Dialog Management Option: DI  Reminder Dialogs
```

*Example: Autogenerating Dialog For Pneumococcal Vaccine Reminder, cont'd*

```
Dialog List              Mar 22, 2000 09:56:23        Page:  1 of    7
REMINDER VIEW (ALL REMINDERS BY NAME)

 Item Reminder Name                          Linked Dialog Name & Dialog Status

   1  AGETEST                               AGETEST                        Disabled
   2  BLOOD PRESSURE CHECK
   3  DGENTEST
   4  EDUTEST                               EDUTEST
   5  HEPATITIS C ASSESSMENT                HEPATITIS C ASSESSMENT
   6  JG BREAST CANCER SCREEN               JG BREAST CANCER SCREEN
   7  MENTAL HEALTH TESTS                   MENTAL HEALTH TESTS            Disabled
   8  Pain Assessment PS>=4
   9  SLC PNEUMOCOCCAL VACCINE              SLC PNEUMOCOCCAL VACCINE
  10  VA-*BREAST CANCER SCREEN
  11  VA-*CERVICAL CANCER SCREEN
  12  VA-*CHOLESTEROL SCREEN (F)
  13  VA-*CHOLESTEROL SCREEN (M)
  14  VA-*COLORECTAL CANCER SCREEN (FOBT
  15  VA-*COLORECTAL CANCER SCREEN (SIG.
+         + Next Screen   - Prev Screen   ?? More Actions                >>>
AR   All reminders        LR   Linked Reminders     QU   Quit
CV   Change View          RN   Name/Print Name
Select Item: Next Screen// 9
```

NOTE: You can also use the hidden action SL (Search List) to search for a reminder.

**2. Select the Reminder Name, SLC PNEUMOCOCCAL VACCINE, then select the action AD, Autogenerate Dialog:**

```
Dialog Selection List              Feb 10, 2000 12:22:20     Page:    1 of    1
REMINDER NAME: SLC PNEUMOCOCCAL VACCINE

Item Dialog Name                          Latest Update       Linked Reminders
    * NO DIALOGS DEFINED *

+         + Next Screen   - Prev Screen   ?? More Actions                >>>
AD   Autogenerate Dialog             QU   Quit
LR   Link Reminder
Select Item: Quit// AD   Create Reminder Dialog
REMINDER NAME: SLC PNEUMOVAX
GENERATE DIALOG AUTOMATICALLY: Y// <Enter> ES
ENTER A UNIQUE DIALOG NAME: SLC PNEUMOCOCCAL VACCINE// <Enter>
LINK DIALOG TO REMINDER: YES// <Enter>

ENABLE DIALOG: NO// YES REPLACE ANY EXISTING DIALOG ELEMENTS? NO// <Enter>
```

***Example: Autogenerating Dialog For Pneumococcal Vaccine Reminder, cont'd***

```
Building dialog  - SLC PNEUMOCOCCAL VACCINE

1    Patient received pneumo-vac at this encounter.

2    Patient indicates a history of contraindication pneumo-vac.
3    Pneumococcal vaccine codes

4    Patient refuses Pneumococcal vaccine.

5    Patient refuses all immunizations.

Updating Dialog Elements
Updating Reminder Dialog
Dialog build complete
```

### 3. Edit the generated dialog, if necessary.

```
Dialog Selection List          Feb 10, 2000 12:22:29          Page:    1 of    1
REMINDER NAME: SLC PNEUMOCOCCAL VACCINE

Item Dialog Name                        Latest Update     Linked Reminders
This reminder is linked to dialog:

  1  SLC PNEUMOCOCCAL VACCINE           Feb 10, 2000      SLC PNEUMOCOCCAL VACCINE


+         + Next Screen   - Prev Screen   ?? More Actions                >>>
AD   Autogenerate Dialog              QU   Quit
LR   Link Reminder
Select Item: Quit// 1
```

```
Dialog Edit List               Feb 10, 2000 12:22:31          Page:    1 of    4
REMINDER DIALOG NAME: SLC PNEUMOCOCCAL VACCINE

Sequence      Dialog Text
  5            Patient received pneumo-vac at this encounter.
                  Series:
                  Contraindicated
                  Reaction:
                  Comment:
  10           Patient indicates a history of contraindication pneumo-vac.
                  Series:
                  PXRM CONTRAINDICATED (forced value)
                  Reaction:
15            Pneumococcal vaccine codes
 15.1          Prior Diagnosis for Pneumococcal Vaccine
               Selectable codes: V06.6 PROPHYLACTIC VACCINE AGAINST STREPTOCOCC
+         + Next Screen   - Prev Screen   ?? More Actions                >>>
CO   Copy Dialog          DT   Dialog Text          RI   Reminder Inquiry
DD   Detailed Display     ED   Edit/Delete Dialog   QU   Quit
DP   Progress Note Text   INQ  Inquiry/Print
Select Sequence: Next Screen// 1
```

**Enter a new sequence number to add a new element,** as described on the next page.

### Editing Dialog For Pneumococcal Vaccine—Add a new element

### 4. To add a new element, enter a new sequence number:

```
Dialog Selection List          Mar 15, 2000 13:00:54        Page:    1 of    4
REMINDER DIALOG NAME: SLC PNEUMOCOCCAL VACCINE
Sequence      Dialog Text
  5            Patient received pneumo-vac at this encounter.
                  Series:
                  Contraindicated
                  Reaction:
                  Comment:
 10            Patient indicated pneumo-vac was received outside the VA.
                  Contraindicated
                  Date:
                  Location:
                  Comment:
 15            Patient indicates a history of contraindication pneumo-vac.
                  Series:
                  PXRM CONTRAINDICATED (forced value)
                  Reaction:
+         + Next Screen   - Prev Screen   ?? More Actions                >>>
CO   Copy Dialog          DT   Dialog Text          RI   Reminder Inquiry
DD   Detailed Display     ED   Edit/Delete Dialog   QU   Quit
DP   Progress Note Text   INQ  Inquiry/Print
Select Sequence: Next Screen// 1
```

### 5. Add the name of the new element, then respond to prompts about the element:

```
ARE YOU ADDING 1 AS A NEW SEQUENCE NUMBER: N// <Enter> YES
Select new DIALOG ELEMENT: SP IMM TEXT ONLY
  Are you adding 'SP IMM TEXT ONLY' as a new REMINDER DIALOG? No// Y  (Yes)
   REMINDER DIALOG TYPE: E  dialog element
CURRENT DIALOG ELEMENT/GROUP NAME: SP IMM TEXT ONLY
Used by:  SLC PNEUMOCOCCAL VACCINE (Current Reminder Dialog)
DISABLE: <Enter>
RESOLUTION TYPE: <Enter>
FINDING ITEM: <Enter>
DIALOG/PROGRESS NOTE TEXT:
  No existing text
  Edit? NO// YES
[WRAP]=[ INSERT ]=<DIALOG WORD PROCESSING>=[<PF1>H=Help]=IMMUNIZATIONS
<======T=======T=======T=======T=======T=======T=======T=======T=======T>======
ALTERNATE PROGRESS NOTE TEXT:
  No existing text
  Edit? NO//<Enter>
EXCLUDE FROM PROGRESS NOTE: <Enter>
SUPPRESS CHECKBOX: 1  SUPPRESS
RESULT GROUP/ELEMENT: <Enter>
Select ADDITIONAL FINDINGS: <Enter>
ALTERNATE PROGRESS NOTE TEXT:
  No existing text
  Edit? NO// <Enter>
EXCLUDE FROM PROGRESS NOTE: <Enter>
SUPPRESS CHECKBOX: <Enter>
Select SEQUENCE: <Enter>
```

*Editing Dialog For Pneumococcal Vaccine—Add a new element, cont'd*

```
Dialog Edit List              Mar 15, 2000 13:10:23          Page:    1 of    4
REMINDER DIALOG NAME: SLC PNEUMOCOCCAL VACCINE

 Sequence      Dialog Text
  1            IMMUNIZATIONS

  5            Patient received pneumo-vac at this encounter.
                  Series:
                  Contraindicated
                  Reaction:
                  Comment:

 10            Patient indicated pneumo-vac was received outside the VA.
                  Contraindicated
                  Date:
                  Location:
                  Comment:

 15            Patient indicates a history of contraindication pneumo-vac.
                  Series:
+         + Next Screen   - Prev Screen   ?? More Actions                >>>
CO   Copy Dialog          DT   Dialog Text          RI   Reminder Inquiry
DD   Detailed Display     ED   Edit/Delete Dialog   QU   Quit
DP   Progress Note Text   INQ  Inquiry/Print
Select Sequence: Next Screen//
```

**6. Use the Reminder Dialogs option to remove elements from the dialog:**

```
Dialog Edit List              Mar 15, 2000 13:16:03          Page:    1 of    4
REMINDER DIALOG NAME: SLC PNEUMOCOCCAL VACCINE
Sequence      Dialog Text
  1            IMMUNIZATIONS
  5            Patient received pneumo-vac at this encounter.
                  Series:
                  Contraindicated
                  Reaction:
                  Comment:
 10            Patient indicated pneumo-vac was received outside the VA.
                  Contraindicated
                  Date:
                  Location:
                  Comment:
 15            Patient indicates a history of contraindication pneumo-vac.
                  Series:
+         + Next Screen   - Prev Screen   ?? More Actions                >>>
CO   Copy Dialog          DT   Dialog Text          RI   Reminder Inquiry
DD   Detailed Display     ED   Edit/Delete Dialog   QU   Quit
DP   Progress Note Text   INQ  Inquiry/Print
Select Sequence: Next Screen// 10
CURRENT DIALOG ELEMENT NAME: IM PNEUMO-VAC DONE ELSEWHERE
     Select one of the following:
          E         Edit
          C         Copy and Replace current element
          D         Delete element from this dialog
Select Dialog Element Action: E// d  Delete element from this dialog
```

## SLC PNEUMOCOCCAL VACCINE Reminder

```
NUMBER: 660062

SLC PNEUMOCOCCAL VACCINE
------------------------

Print name:                    SLC Pneumovax

Related VA-* Reminder:         VA-*PNEUMOCOCCAL VACCINE

Reminder Dialog:               SLC PNEUMOCOCCAL VACCINE

Priority:                      LOW

Reminder Description:
     This "VA-*PNEUMOCOCCAL VACCINE" reminder is defined based on the following
     "Pneumococcal Vaccine" guidelines specified in the VHA HANDBOOK 1101.8,
     APPENDIX A.

         Target Condition: Pneumococcal pneumonia.

         Target Group: Outpatients age 65 and older.

         Recommendation: All persons age 65 and older should receive one
         vaccination with pneumococcal vaccine in their lifetime.

         Goal for FY 2000: 80% of individuals 65 and older have received
         pneumococcal vaccine.

Technical Description:
     If this reminder is not going to be used at your facility, the INACTIVE
     FLAG should be set to inactive.

     This reminder represents the minimum criteria for checking if the
     pneumococcal vaccine has been given to the patient.

     The Ambulatory Care EP recommends a variation on this reminder represented
     in the "VA-PNEUMOVAX" reminder, which includes a check for diagnoses
     documented for the patient that would indicate the pneumococcal vaccine
     should be given to the patient regardless of the patients age.

     Please review both of these reminder definitions, choose one of them to
     use.  If local modifications need to be made, copy the preferred reminder
     to a new reminder and make your reminder modifications.


Baseline Frequency:
   Do In Advance Time Frame:  Do if DUE within 3 months
                Sex Specific:
               Ignore on N/A:

    Frequency for Age Range:  99Y - Once for ages 65 and older
                  Match Text:  Pneumovax due once for patients 65 and over.
               No Match Text:
```

*SLC PNEUMOCOCCAL VACCINE Reminder, cont'd*

```
Findings:

               Finding Item:  PNEUMOCOCCAL (FI(1)=IM(19))
               Finding Type:  IMMUNIZATION
       Match Frequency/Age:  No change in frequency on match
    Use in Resolution Logic:  OR
             Finding Item:  VA-PNEUMOCOCCAL VACCINE (FI(2)=TX(25))
               Finding Type:  REMINDER TAXONOMY
        Match Frequency/Age:  No change in frequency on match
    Use in Resolution Logic:  OR
               Finding Item:  PATIENT REFUSES PNEUMOCOCCAL VACCINE
(FI(3)=HF(660022))
               Finding Type:  HEALTH FACTOR
        Match Frequency/Age:  No change in frequency on match
Use in Patient Cohort Logic:  AND NOT

               Finding Item:  PATIENT REFUSES ALL IMMUNIZATIONS (FI(4)=HF(660023))
               Finding Type:  HEALTH FACTOR
        Match Frequency/Age:  No change in frequency on match
Use in Patient Cohort Logic:  AND NOT
Default PATIENT COHORT LOGIC to see if the Reminder applies to a patient:
     (SEX)&(AGE)&'FI(3)&'FI(4)

Expanded Patient Cohort Logic:
     (SEX)&(AGE)&'FI(PATIENT REFUSES PNEUMOCOCCAL VACCINE)&'
     FI(PATIENT REFUSES ALL IMMUNIZATIONS)

Default RESOLUTION LOGIC defines findings which can resolve the Reminder:
     FI(1)!FI(2)

Expanded Resolution Logic:
FI(PNEUMOCOCCAL)!FI(VA-PNEUMOCOCCAL VACCINE)
```

## Example of a dialog element

```
Dialog Name:  IM PNEUMO-VAC DONE

CURRENT DIALOG ELEMENT/GROUP NAME: IM PNEUMO-VAC DONE
Used by:  VA-*PNEUMOCOCCAL VACCINE (Reminder Dialog)
          SLC PNEUMOCOCCAL VACCINE (Reminder Dialog)
DISABLE: <Enter>
RESOLUTION TYPE: DONE AT ENCOUNTER// <Enter>
FINDING ITEM: PNEUMOCOCCAL// <Enter>
DIALOG/PROGRESS NOTE TEXT:
Patient received pneumo-vac at this encounter.
  Edit? NO// <Enter>
ALTERNATE PROGRESS NOTE TEXT:
  No existing text
  Edit? NO// <Enter>
EXCLUDE FROM PROGRESS NOTE: <Enter>
SUPPRESS CHECKBOX: <Enter>
Select ADDITIONAL FINDINGS: <Enter>
RESULT GROUP/ELEMENT: <Enter>
Select SEQUENCE: 4// ?
 Answer with COMPONENTS SEQUENCE, or ITEM
```

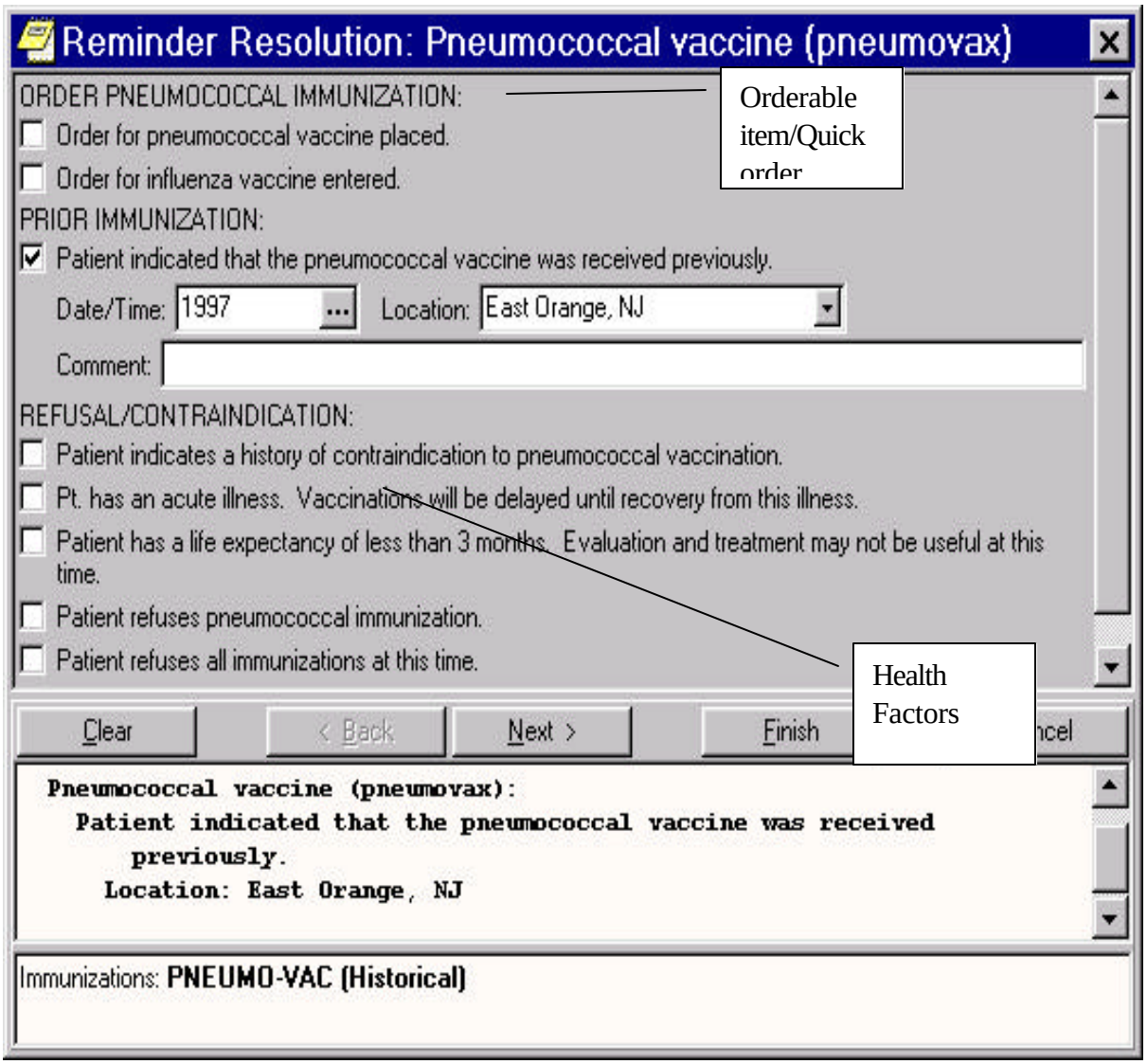
*SLC PNEUMOCOCCAL VACCINE Reminder, cont'd*

```
Choose from:
   1      PXRM SERIES
   2      PXRM CONTRAINDICATED
   3      PXRM REACTION
   4      PXRM COMMENT

     You may enter a new COMPONENTS, if you wish
     Type a Number between .1 and 999.9, 1 Decimal Digit
Select SEQUENCE: 4// 1    PXRM SERIES
  SEQUENCE: 1// <Enter>
  PROMPT/FORCED VALUE: PXRM SERIES// <Enter>
  OVERRIDE PROMPT CAPTION: <Enter>
  START NEW LINE: YES//<Enter>
  EXCLUDE FROM PN TEXT: <Enter>
  REQUIRED: <Enter>
Select SEQUENCE: <Enter>
```

**Example of Taxonomy Dialog**

```
Dialog element: TX PNEUMOCOCCAL VACCINE CODES

Dialog Text Fields
DIALOG HEADER TEXT: <Enter>
CURRENT DIAGNOSIS DIALOG TEXT: Current Diagnosis for Pneumococcal
Vaccine
           Replace <Enter>
PREVIOUS DIAGNOSIS DIALOG TEXT: Prior Diagnosis for Pneumococcal Vaccine
           Replace <Enter>
CURRENT PROCEDURE DIALOG TEXT: Current Procedure// <Enter>
PREVIOUS PROCEDURE DIALOG TEXT: Prior Procedure// <Enter>

Dialog Selectable codes
Select SELECTABLE DIAGNOSIS: V06.6//<Enter>
  SELECTABLE DIAGNOSIS: V06.6// <Enter>
  DISPLAY TEXT: <Enter>
  DISABLED: <Enter>
Select SELECTABLE DIAGNOSIS: <Enter>
Select SELECTABLE PROCEDURE: G0009//<Enter>
  SELECTABLE PROCEDURE: G0009//<Enter>
  DISPLAY TEXT: <Enter>
  DISABLED: <Enter>
Select SELECTABLE PROCEDURE: <Enter>

Dialog Generation Parameters
GENERATE DIALOG DX PARAMETER: <Enter>
GENERATE DIALOG PR PARAMETER: <Enter>
```

**Alternate Dialog For Pneumococcal Vaccine**



### Dialog Groups

For more complicated dialogs, you may want to group several checkboxes (sentences) within a dialog element. To do this, a special dialog component is required called a dialog group.

### Steps to build a dialog group

When editing dialogs from the Change View action of reminder dialogs, you now use the same editor as the one used for reminder dialogs. Dialog group elements may be edited, copied/renamed, or deleted. It is no longer necessary to build component dialog elements before building the dialog group. Elements may be created from within the dialog group screen.

To build a reminder dialog containing a group, first build the dialog group, and then add it to the reminder dialog.

1. Decide the dialog elements to appear in the dialog group.

2. Create the dialog group as follows:

    a. Select the Change View (CV) action.
    b. Choose G for Groups,
    c. Enter AD to add a new dialog group.
    d. Use a prefix in the group name that distinguishes it from other dialog elements (e.g. GP).
    e. Enter the parameters for the group (text, caption text, box, hide etc). If the group has a finding item, enter any additional prompts or forced values.
    f. For each dialog element in the group, enter a sequence number and the dialog element name. If the dialog element is new, it may be created within this screen.

### Adding a Dialog Group to a Reminder Dialog

1. To include the dialog group in a reminder dialog, use the option DI Reminder Dialog and enter the dialog group in the same manner as a dialog element.

2. Dialog and Progress note text and group parameters for the dialog group are displayed and can be edited from the DI Reminder Dialog option.

3. Test the reminder dialog within the GUI.

4. If individual dialog elements within the dialog group need modifying, use the CV Change View action and select E for Element to list and edit dialog elements.

### Including a Dialog Group in Reminder Dialog Autogeneration

For a single finding item on the reminder definition, a number of standard dialog elements are created by the autogeneration, depending on the finding type parameters within the DP Dialog Parameters menu.

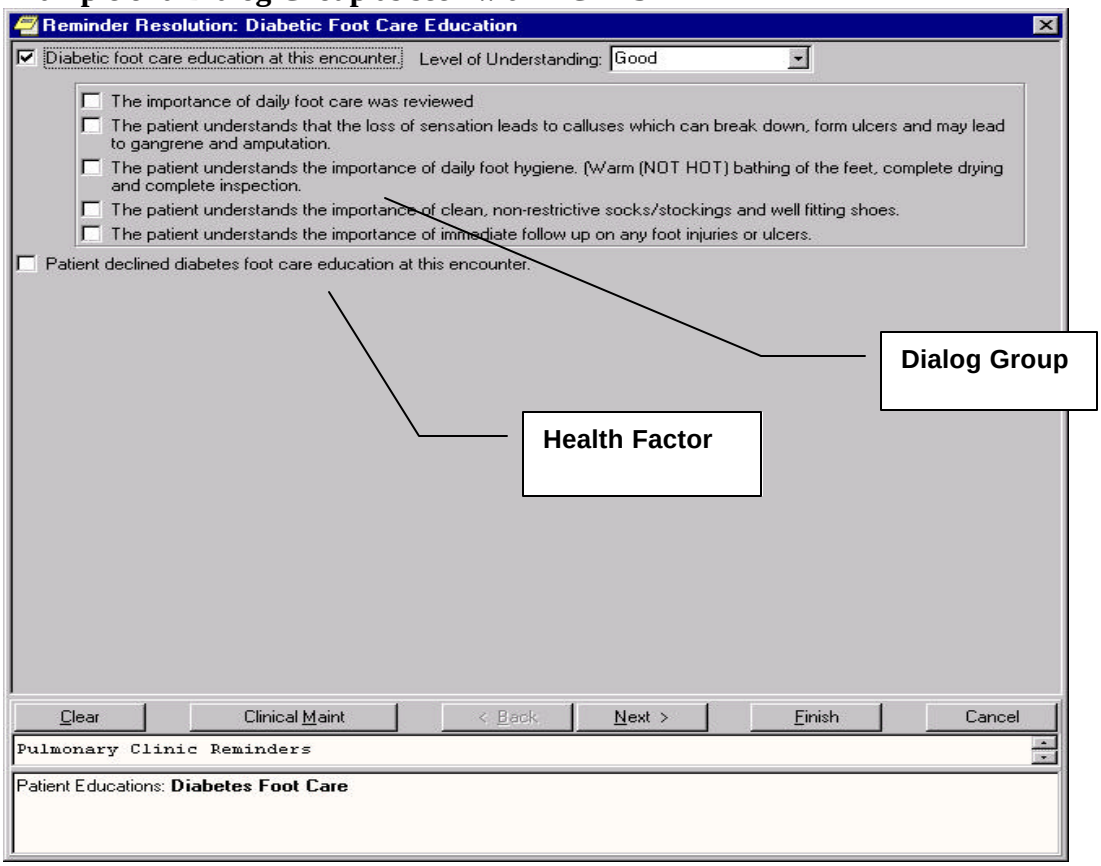
For example, generating a reminder dialog for a reminder with diabetic foot care education as a finding would create three standard dialog elements:

ED DIABETES FOOT CARE DONE
ED DIABETES FOOT CARE DONE ELSEWHERE
ED DIABETES FOOT CARE REFUSED

When reminder dialogs are generated for other reminders with this finding item, the reminder dialog created will use these same standard elements.

If a dialog group should always be used for a reminder finding item in dialog autogeneration (instead of the standard dialog elements), then the dialog group can be entered in the option Finding Item Parameters for the finding item. The dialog group will then be inserted into the generated reminder dialog instead of the standard dialog elements.

### Example of a Dialog Group as seen within CPRS



### Dialog Management Options

Reminder Dialogs are in the REMINDER DIALOG file (#801.41). This file is used to define a reminder dialog to represent a reminder. This file is similar to the option file where there are different types of entries (reminder dialog, dialog elements (sentences), prompts, and groups of elements). The main difference is use of a sequence field as the .01 field

The options on the Dialog Management menu allow you to create and edit dialogs and to maintain the parameters used by CPRS for reminder dialog processing.

| Synonyn | Option | Option Name | Description |
|---|---|---|---|
| DP | Dialog Parameters | PXRM DIALOG PARAMETERS | This menu allows maintenance of parameters used in dialog generation. |
| DI | Reminder Dialogs | PXRM DIALOG/ COMPONENT EDIT | Dialog file entries may be created or amended with this option. |

### Dialog Parameters (DP)

Before you can create dialogs, the entries in the Dialog Parameters must be appropriate for the dialog you are creating. Although the autogeneration process inserts pre-defined elements from entries in the dialog parameters files, these may not all be appropriate for a specific dialog. Therefore, you should review these dialog parameters and edit them, as necessary.

| Synonym | Option | Option Name | Description |
|---|---|---|---|
| RS | Reminder Resolution Statuses | PXRM RESOLUTION EDIT/INQ | This option lists the hierarchy of resolution status values used by CPRS. |
| HR | Health Factor Resolutions | PXRM HEALTH FACTOR RESOLUTIONS | For each health factor, one or more resolution statuses may be selected. When generating a reminder dialog for a reminder with a health factor finding, dialog items will only be generated for the resolution statuses selected here. |
| FP | General Finding Type Parameters | PXRM PARAMETER EDIT/INQUIRE | This option lists the finding parameters used by the Create Dialog from Reminder Definition option. |
| FI | Finding Item Parameters | PXRM FINDING ITEM | If a reminder finding item will always be resolved by the same sentence (dialog element) or set of sentences (dialog group), an entry should be made in the finding item parameter file linking the reminder finding item to the dialog element or group. When a reminder dialog is generated, it will include the sentences defined in this file (applicable to the findings on the reminder) instead of generating a dialog using the FINDING TYPE PARAMETERS file. |
| TD | Taxonomy Dialog Parameters | PXRM DIALOG | The dialog for a taxonomy finding is created from the fields in this option each time the reminder dialog is passed to CPRS or viewed through the reminder dialog option. |

### Reminder Resolution Statuses (RS)

Reminder resolution statuses are maintained using this option. A national set of resolution statuses is released with the reminder package. Local resolution statuses may be defined, but must be linked to a national status.

The first screen in this option displays the existing resolution statuses:

```
Selection List                              May 05, 2000 15:15:26      Page:    1 of
1
Reminder Resolution Status

Item Reminder Resolution Status        National/Local
   1  CONTRAINDICATED                   NATIONAL
   2  DONE AT ENCOUNTER                 NATIONAL
   3  DONE ELSEWHERE (HISTORICAL)       NATIONAL
   4  INACTIVATE                        NATIONAL
   5  INFORMATIONAL                     NATIONAL
   6  LOCAL                             LOCAL
   7  ORDERED                           NATIONAL
   8  OTHER                             NATIONAL
   9  OTHER - DUE TO CLINICIAN DECISION LOCAL
  10  OTHER - DUE TO COHORT AGE         LOCAL
  11  OTHER - DUE TO CONTRAINDICATION   LOCAL
  12  OTHER - DUE TO LIFE EXPECTANCY    LOCAL
  13  OTHER - DUE TO MEDICAL CONDITION  LOCAL
  14  PATIENT REFUSED                   NATIONAL
+         + Next Screen   - Prev Screen   ?? More Actions                 >>>
AD   Add                  PT   List/Print All            QU   Quit
Select Item: Quit//
```

**Actions**

**AD** Add a new local resolution status
**PT** List or print all resolution statuses
**QU** Return to menu
**#** Enter the item number to be edited

### AD Add a new local resolution status

```
Selection List              May 05, 2000 12:11:25          Page:    1 of    1
Reminder Resolution Status

 Item Reminder Resolution Status        National/Local
   1  CONTRAINDICATED                   NATIONAL
   2  DONE AT ENCOUNTER                 NATIONAL
   3  DONE ELSEWHERE (HISTORICAL)       NATIONAL
   4  ORDERED                           NATIONAL
   5  OTHER                             NATIONAL
   6  PATIENT REFUSED                   NATIONAL

+         + Next Screen   - Prev Screen   ?? More Actions                 >>>
AD   Add                  PT   List/Print All       QU   Quit
Select Item: Quit// AD   Add
```

### *Reminder Resolution Statuses, cont'd*

```
Select new RESOLUTION STATUS name: ?
 Answer with REMINDER RESOLUTION STATUS NAME
Choose from:
   CONTRAINDICATED
   DONE AT ENCOUNTER
   DONE ELSEWHERE (HISTORICAL)
   ORDERED
   OTHER
   PATIENT REFUSED

     You may enter a new REMINDER RESOLUTION STATUS, if you wish
     Answer must be 3-40 characters in length.

Select new RESOLUTION STATUS name: OTHER-DUE TO LIFE EXPECTANCY
  Are you adding 'OTHER-DUE TO LIFE EXPECTANCY' as
    a new REMINDER RESOLUTION STATUS (the 7TH)? No// Y  (Yes)
NAME: OTHER-DUE TO LIFE EXPECTANCY  Replace <Enter>
DESCRIPTION:
  1>Other due to life expectancy
  2><Enter>
EDIT Option: <Enter>
ABBREVIATED NAME: OTHER - LIFE EXPECT
REPORT COLUMN HEADING: OTHER - LIFE EXPECT
INACTIVE FLAG: <Enter>

This resolution status must be linked to a national status

SELECT NATIONAL RESOLUTION STATUS: OTHER
         ...OK? Yes// <Enter>  (Yes)
```

```
Selection List                  May 05, 2000 12:15:50          Page:    1 of    1
Reminder Resolution Status
 Item Reminder Resolution Status        National/Local
   1  CONTRAINDICATED                   NATIONAL
   2  DONE AT ENCOUNTER                 NATIONAL
   3  DONE ELSEWHERE (HISTORICAL)       NATIONAL
   4  ORDERED                           NATIONAL
   5  OTHER                             NATIONAL
   6  OTHER-DUE TO LIFE EXPECTANCY      LOCAL
   7  PATIENT REFUSED                   NATIONAL


+         + Next Screen   - Prev Screen   ?? More Actions                >>>
AD   Add                 PT   List/Print All       QU   Quit
Select Item: Quit// <Enter>
```

### ED Edit resolution status

When you select a specific resolution status (for example, #6 in the list above), details of that status are displayed. You can then perform any of the actions listed below on that status.

```
Edit List          May 05, 2000 12:18:05                  Page:    1 of    1
Reminder Resolution Status Name:  OTHER - DUE TO LIFE EXPECTANCY
_____________________________________________________________________________
Resolution Status: OTHER - DUE TO LIFE EXPECTANCY

Resolution Status Description
     Other due to life expectancy.

   Related National Status:  OTHER
          Abbreviated name:  OTHER - LIFE EXPECT
    Report Column Headings:  OTHER - LIFE EXPECT
             Inactive Flag:
+         + Next Screen   - Prev Screen   ?? More Actions                >>>
ED   Edit                INQ  Inquiry/Print        QU   Quit
Select Action: Quit// ED
```

**Actions**

**ED** Edit/Delete this resolution status. National statuses may not be added or deleted. Column headings are used in Reminder Activity Reports. Local statuses must be mapped to a national status.

**INQ** List or print this resolution status.

**QU** Return to previous screen.

```
Edit List                  May 05, 2000 12:18:05            Page:    1 of    1
REMINDER RESOLUTION STATUS NAME: OTHER-DUE TO LIFE EXPECTANCY

Resolution Status: OTHER-DUE TO LIFE EXPECTANCY

Resolution Status Description
     Other due to life expectancy

   Related National Status:  OTHER
          Abbreviated name:  OTHER - LIFE EXPECT
    Report Column Headings:  OTHER - LIFE EXPECT
             Inactive Flag:
+         + Next Screen   - Prev Screen   ?? More Actions                >>>
ED   Edit                INQ  Inquiry/Print        QU   Quit
Select Action: Quit// ED   Edit
NAME: OTHER-DUE TO LIFE EXPECTANCY  Replace <Enter>
DESCRIPTION:
  1>Other due to life expectancy
EDIT Option: <Enter>
ABBREVIATED NAME: OTHER - LIFE EXPECT// <Enter>
REPORT COLUMN HEADING: OTHER - LIFE EXPECT// OTHER - LIFE EXPECT with OTHER – LIFE
EXP. <Enter>
INACTIVE FLAG: <Enter>
```

*Reminder Resolution Statuses, cont'd*

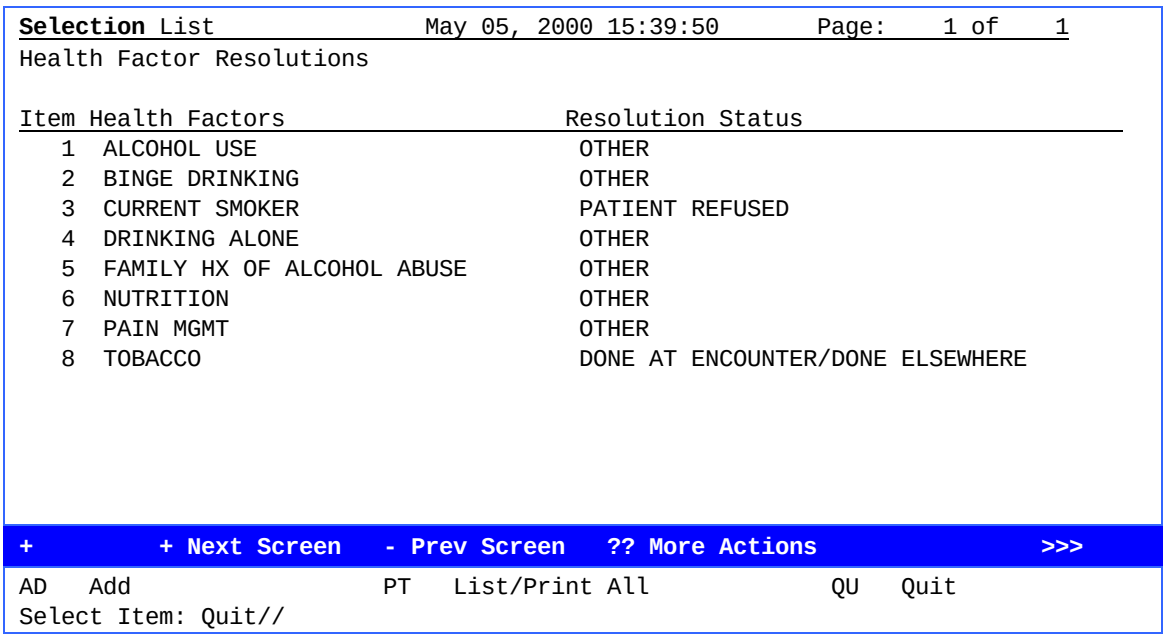
```
Edit List                    May 05, 2000 12:20:02            Page:    1 of    1
REMINDER RESOLUTION STATUS NAME: OTHER-DUE TO LIFE EXPECTANCY


Resolution Status: OTHER-DUE TO LIFE EXPECTANCY

Resolution Status Description
     Other due to life expectancy


   Related National Status:  OTHER
          Abbreviated name:  OTHER - LIFE EXPECT
    Report Column Headings:  OTHER - LIFE EXP.
             Inactive Flag:
```

```
+         + Next Screen   - Prev Screen   ?? More Actions                >>>
ED   Edit                 INQ  Inquiry/Print        QU   Quit
Select Action: Quit// ED   Edit
NAME: OTHER-DUE TO LIFE EXPECTANCY  Replace @
  SURE YOU WANT TO DELETE THE ENTIRE 'OTHER-DUE TO LIFE EXPECTANCY' REMINDER R  Y
(Yes)
```

### Health Factor Resolutions (HR)

For reporting purposes, all health factors included in CPRS reminder dialogs must be mapped to a resolution status. This option is used to maintain these mappings. If a health factor is not mapped to a resolution status, it will be ignored by dialog generation (except where an entry exists in the FINDING ITEM PARAMETER file #801.43).

The first screen in this option displays the current mappings:

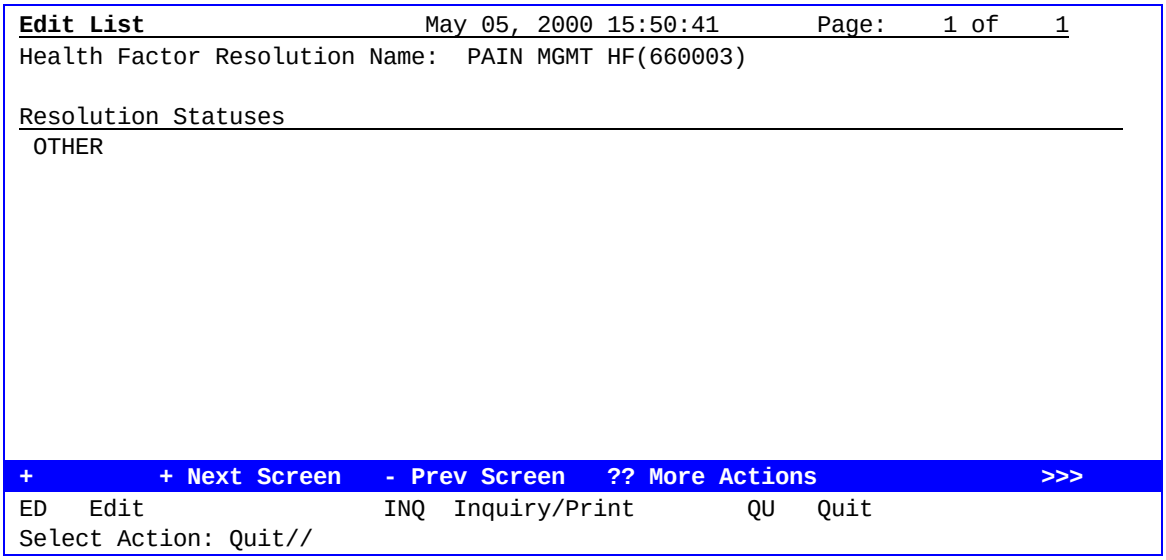


```
Selection List                May 05, 2000 15:39:50       Page:    1 of    1
Health Factor Resolutions

Item Health Factors                       Resolution Status
   1  ALCOHOL USE                          OTHER
   2  BINGE DRINKING                       OTHER
   3  CURRENT SMOKER                       PATIENT REFUSED
   4  DRINKING ALONE                       OTHER
   5  FAMILY HX OF ALCOHOL ABUSE           OTHER
   6  NUTRITION                            OTHER
   7  PAIN MGMT                            OTHER
   8  TOBACCO                              DONE AT ENCOUNTER/DONE ELSEWHERE

+         + Next Screen   - Prev Screen   ?? More Actions                 >>>
AD   Add                  PT   List/Print All            QU   Quit
Select Item: Quit//
```

#### Actions

**AD** Add a new health factor (and resolutions) to the HEALTH FACTOR RESOLUTION file #801.95
**PT** List or print all health factor resolutions
**QU** Return to menu
**#** Enter the item number to be edited

When you select a health factor resolution by number, an edit screen appears that displays the related resolution statuses and lets you edit or delete them.




## Actions

**ED** Edit/Delete the resolution statuses for this health factor. A health factor may be associated with more than one resolution status.
**INQ** List or print the resolution statuses for this health factor.
**QU** Return to previous screen.

### Allocating Resolution Statuses for all Health Factors on a reminder

The option HR Health Factor Resolutions allows selection of reminders:

```
Selection List                  May 05, 2000 10:14:51          Page:    1 of    2
Health Factor Resolutions
Item Health Factors                        Resolution Status
   1  ACTIVATE TOBACCO USE SCREEN          OTHER
   2  ALCOHOL USE                          OTHER
   3  BINGE DRINKING                       OTHER
   4  CURRENT NON-SMOKER                   OTHER
   5  CURRENT SMOKER                       OTHER
   6  CURRENTLY PREGNANT                   OTHER
   7  DRINKING ALONE                       OTHER
   8  FAMILY HX OF ALCOHOL ABUSE           OTHER
   9  INACTIVATE BREAST CANCER SCREEN      OTHER
  10  INACTIVATE EXERCISE SCREEN           OTHER
  11  INACTIVATE FOBT CANCER SCREEN        OTHER
  12  INACTIVATE PNEUMOCOCCAL VACCINE      OTHER
  13  LIFETIME NON-SMOKER                  OTHER
  14  LIFETIME NON-TOBACCO USER            OTHER
  15  NO RISK FACTORS FOR HEP C            DONE AT ENCOUNTER
  16  NUTRITION                            OTHER
 +        + Next Screen   - Prev Screen   ?? More Actions                >>>
AD   Add                  PT   List/Print All       QU   Quit
Select Item: Next Screen// AD   Add
```

```
     Select one of the following:

          I         Individual Health Factor
          A         All Health Factors for a Selected Reminder

SELECTION OPTION: I// All Health Factors for a Selected Reminder

SELECT REMINDER: TOBACCO USE SCREEN

HEALTH FACTORS: <Enter>

ACTIVATE TOBACCO USE SCREEN (Resolution defined)
INACTIVATE TOBACCO USE SCREEN

MODIFY resolution status for ACTIVATE TOBACCO USE SCREEN: N//<Enter> O
ADD resolution status for INACTIVATE TOBACCO USE SCREEN: N// YES
NAME: INACTIVATE TOBACCO USE SCREEN// <Enter>
Select RESOLUTION STATUS: OTHER
         ...OK? Yes// <Enter>  (Yes)

Select RESOLUTION STATUS: <Enter>
```

### General Finding Type Parameters (FP)

This option allows display of the REMINDER FINDING TYPE PARAMETER file #801.45 used in generating reminder dialogs. There is limited edit on this file to allow customization of prefix and suffix text. Parameters may also be disabled if not required at your site.

The file is structured by finding type and within that resolution status. Reminder dialog generated will include a sentence (dialog element) for each resolution type enabled in the finding type parameter file. The sentence text is constructed as prefix_finding item name_suffix. Health factors are treated slightly differently. Health factors are linked to resolution statuses by the Health Factor Resolutions option. For reminders with health factors, sentences are only generated if there is a resolution mapping AND an enabled finding type parameter.

The first screen in this option displays the finding types held in this file:

```
Selection List                May 05, 2000 16:06:40          Page:    1 of    1
Finding Type Parameters

 Item Finding Type Parameter
   1  PROCEDURE
   2  EDUCATION TOPIC
   3  EXAM
   4  HEALTH FACTOR
   5  IMMUNIZATION
   6  ORDERABLE ITEM
   7  DIAGNOSIS
   8  SKIN TEST
   9  VITAL MEASUREMENT
+         + Next Screen   - Prev Screen   ?? More Actions                >>>
PT   List All             QU   Quit
Select Item: Quit//
```

**Actions**

**PT** List or print all finding type parameters
**QU** Return to menu
**#** Enter the item number of the finding type to be edited

When you select an item from this screen, all of the finding type parameters for the finding type selected are displayed. The reminder dialog generation process uses this file to create dialog as follows:

For each finding item on the reminder, the REMINDER FINDING TYPE PARAMETER file is checked to see if there are any "enabled" resolution statuses for the finding type. If an enabled resolution status exists, then a dialog element (sentence) is added to the reminder dialog with sentence text generated from the finding name concatenated with prefix and suffix text

Example: *Patient had* ALCOHOL USE *education at this encounter*

***General Finding Type Parameters, cont'd***

Clicking on the checkbox displayed with this sentence in CPRS causes the finding item (from the original reminder definition) to be posted to this patient's record.

Additional prompts are also added to the dialog element as specified in the finding type parameter file.

**Note**: Dialog elements created by reminder dialog generation are given a standard name based on the finding type, finding name, and resolution status (from the REMINDER FINDING TYPE PARAMETER file)

Example: ED ALCOHOL USE DONE ELSEWHERE

The dialog elements created are shared by reminder dialogs for reminders with the same finding item.

The example below is the finding type parameter for education findings

```
Finding Type Parameter List        May 05, 2000 16:11:10     Page:    1 of    1
Finding Type Parameter Name: ED - EDUCATION TOPIC

  Resolution Status          Prefix//Suffix & Prompts/Values/Actions   Status
1 DONE AT ENCOUNTER           Patient had/                             Enabled
                              /at this encounter
                              1] PXRM COMMENT
                              2] PXRM LOU (EDUCATION)

2 DONE ELSEWHERE (HISTORICAL)Patient indicated/                       Disabled
                              /was received outside the VA
                              1] PXRM COMMENT
                              2] PXRM VISIT DATE
                              3] PXRM OUTSIDE LOCATION

3 PATIENT REFUSED             Patient declined/                       Disabled
                              /at this encounter
                              1] PXRM REFUSED (forced value)
                              2] PXRM COMMENT
+         + Next Screen   - Prev Screen   ?? More Actions                >>>
INQ  Inquiry/Print        QU   Quit
Select number of Resolution Status to Edit: Quit//
```

**Actions**

**#** Select finding type/resolution status to edit.
**INQ** List or print the parameters for this finding type.
**QU** Return to previous screen.

If a number is entered to select a resolution status, the following fields can be edited:

```
ED - EDIT FINDING TYPE PARAMETER

Finding Type Parameter Name: ED - EDUCATION TOPIC
RESOLUTION STATUS : DONE AT ENCOUNTER
DISABLE RESOLUTION STATUS: DISABLED// <Enter>
PREFIX TEXT: Patient had// <Enter>
SUFFIX TEXT: at this encounter// <Enter>
Select ADDITIONAL PROMPTS: PXRM LOU (EDUCATION)// <Enter>
  DISABLE ADDITIONAL PROMPT: <Enter>
  OVERRIDE PROMPT CAPTION: <Enter>
  START NEW LINE: <Enter>
  EXCLUDE FROM PN TEXT: <Enter>
  REQUIRED: <Enter>
```

### Finding Item Parameters (FI)

This file allows reminder finding items to be linked to a specific dialog element (i.e. sentence and prompts) or a group of dialog elements. The reminder dialog generated for a reminder with a finding item entry in this file will include the dialog element or dialog group specified in this file instead of creating a dialog using the REMINDER FINDING TYPE PARAMETER file

The first screen in this option displays the finding items held in this file:

```
Selection List                  May 05, 2000 10:35:36          Page:    1 of    1
Finding Item Parameters

 Item Finding Item Type & Name          Dialog Group/Element           Status
   1  HF-ED SUBSTANCE ABUSE (OVERRIDE)  ED SUBSTANCE ABUSE REFUSED     Enabled
   2  HF-ALCOHOL                        ALCOHOL DIALOG GROUP           Disabled

+         + Next Screen   - Prev Screen   ?? More Actions                >>>
AD   Add                  PT   List/Print All            QU   Quit
Select Item: Quit//
```

#### Actions

**AD** Add a new finding item to the REMINDER FINDING TYPE PARAMETER file
**PT** List or print all finding item parameters
**QU** Return to menu
**#** Enter the item number to be edited

When you select a specific finding item parameter, details of the selected finding item parameter are displayed. You can then edit:

```
Edit List                       May 05, 2000 10:48:25       Page:    1 of    1
Finding Item Parameter Name:  ALCOHOL  (ENABLED)

 Finding Type: HF(6)          Finding Item: ALCOHOL

Dialog Group: ALCOHOL DIALOG GROUP  (ENABLED)

 1) Dialog Element: HF BINGE DRINKING OTHER  (ENABLED)
    Dialog Text: Binge drinking
    Additional Prompts: PXRM COMMENT

 2) Dialog Element: HF DRINKING ALONE OTHER  (ENABLED)
    Dialog Text: Drinking alone
    Additional Prompts: PXRM COMMENT

+         + Next Screen   - Prev Screen   ?? More Actions                >>>
ED   Edit                 INQ  Inquiry/Print         QU   Quit
Select Action: Quit//
```

**Actions**

**ED** Edit/Delete the finding item parameter. The finding item may be linked to an existing dialog group or dialog element. The dialog group/element may exist already or be created manually using the dialog edit function.

*In the example above, the dialog elements have been previously generated automatically as part of another reminder dialog. A dialog group (ALCOHOL DIALOG GROUP) has then been created in Dialog Edit using these existing dialog elements. Finally an entry has been created in the finding item parameter to link HF(6) to the dialog group.*

**INQ** List or print the parameters for this finding type.
**QU** Return to previous screen.

### Taxonomy Dialog Edit (TD)

Dialogs for reminders with taxonomy findings are created from the REMINDER TAXONOMY file #811.2 as the dialog is passed to CPRS. This option maintains the fields used by this type of dialog. Changes made to a taxonomy dialog are immediately effective on reminder dialogs including the taxonomy finding item.

The first screen in this option displays all taxonomies:

```
Selection List                    May 05, 2000 11:14:48       Page:    1 of    3
Taxonomy Dialog

 Item Reminder Taxonomy
   1  FTEST1
   2  PAIN TAXONOMY
   3  PROBTEST 1
   4  PROBTEST 2
   5  RADIOLOGY TAXONOMY
   6  SLC DIABETES
   7  SLC-Ear Mites
   8  VA-ALCOHOL ABUSE
   9  VA-ALCOHOLISM SCREENING
  10  VA-BREAST TUMOR
  11  VA-CERVICAL CA/ABNORMAL PAP
  12  VA-CERVICAL CANCER SCREEN
  13  VA-CHOLESTEROL
  14  VA-COLORECTAL CA
  15  VA-COLORECTAL CANCER SCREEN
+         + Next Screen   - Prev Screen   ?? More Actions                >>>
PT  List All       QU  Quit
Select Item: Next Screen//
```

#### Actions

**PT** List or print dialog related fields for all taxonomies
**QU** Return to menu
**#** Enter the item number to be edited

If you select one of the items above, the dialog for the selected taxonomy is displayed:

```
Edit List                    May 05, 2000 11:17:16        Page:   1 of    1
Taxonomy Name:  SLC DIABETES
Taxonomy Dialog
  1           Taxonomy header prompt
  1.1         Diagnosis this encounter
              Selectable codes: 100.9  LEPTOSPIROSIS, UNSPECIFIED
                                391.8  MODIFIED TEXT
  1.2         Historical Diagnosis
              Selectable codes: 100.9  LEPTOSPIROSIS, UNSPECIFIED
                                391.8  MODIFIED TEXT
  1.3         Current Procedure
              Selectable codes: 10060  DRAINAGE OF SKIN ABSCESS
                                76091  MAMMOGRAM, BOTH BREASTS
+        + Next Screen   - Prev Screen   ?? More Actions              >>>
ED   Edit                INQ  Inquiry/Print        QU   Quit
Select Action: Quit//
```

**Actions**

**ED** Edit/Delete the taxonomy dialog fields.

**INQ** List or print the parameters for this finding type.

**QU** Return to previous screen.

```
Dialog Text Fields
DIALOG HEADER TEXT: Patient is diabetic//
CURRENT VISIT DX DIALOG HDR: Diabetes diagnosis at this encounter
           Replace
HISTORICAL VISIT DX DIALOG HDR: Previously diagnosed diabetic
           Replace
CURRENT VISIT PR DIALOG HDR: Current Procedure//
HISTORICAL VISIT PR DIALOG HDR: Historical Procedure
           Replace
Dialog Selectable codes
Select SELECTABLE DIAGNOSIS: 391.8//
  SELECTABLE DIAGNOSIS: 391.8//
  DISPLAY TEXT:
  DISABLED:
Select SELECTABLE DIAGNOSIS:
Select SELECTABLE PROCEDURE: 76091//
  SELECTABLE PROCEDURE: 76091//
  DISPLAY TEXT:
  DISABLED:
Select SELECTABLE PROCEDURE:
Dialog Generation Parameters
GENERATE DIALOG DX PARAMETER:
GENERATE DIALOG PR PARAMETER:
```

All selectable codes for the taxonomy are preloaded at implementation. Codes not required may be disabled. The display text for the diagnosis/procedure may also be modified if the standard text for the code is not acceptable. If the taxonomy has only a few codes, then by setting the Generate Dialog DX/PR parameters, it is possible to create a dialog with individual sentences for each code. The sentences (dialog elements) are created from the REMINDER FINDING TYPE PARAMETER file (CPT/POV).

## Reminder Dialogs (DI)

Use this option to create and edit Dialog file entries. When you first select the option, all of the available reminders at your facility are listed, with linked dialogs, if they exist, and dialog statuses. You can select a reminder by name or number and then perform actions on that reminder, or you can select the action CV Change View, which will allow you to autogenerate dialogs, and add dialog elements or groups, etc.

```
Select Dialog Management Option: DI  Reminder Dialogs
Dialog List                  May 22, 2000 09:56:23          Page:    1 of    7
REMINDER VIEW (ALL REMINDERS BY NAME)

 Item Reminder Name                          Linked Dialog Name & Dialog Status
   1  AGETEST                                AGETEST                        Disabled
   2  BLOOD PRESSURE CHECK
   3  DGENTEST
   4  EDUTEST                                EDUTEST
   5  HEPATITIS C ASSESSMENT                 HEPATITIS C ASSESSMENT
   6  JG BREAST CANCER SCREEN                JG BREAST CANCER SCREEN
   7  MENTAL HEALTH TESTS                    MENTAL HEALTH TESTS            Disabled
   8  Pain Assessment PS>=4
   9  SLC PNEUMOCOCCAL VACCINE               SLC PNEUMOCOCCAL VACCINE
  10  VA-*BREAST CANCER SCREEN
+         + Next Screen   - Prev Screen   ?? More Actions                 >>>
AR   All reminders        LR   Linked Reminders     QU   Quit
CV   Change View          RN   Name/Print Name
Select Item: Next Screen// CV
```

### Actions

**AR** All Reminders. All reminders are displayed.

**CV** Change view to see and select other reminder dialog types such as elements, forced values, and groups. Once a particular type has been selected, you can work with it..

**LR** Linked Reminders. Many dialogs may be generated from a reminder but the reminder may only be linked to one dialog for use in CPRS. This option allows that link to be changed. *LR displays **ONLY** reminders that are linked to dialogs*

**RN** Name/Print Name. Toggle reminder name and reminder print name.

**QU** Return to previous screen.

**#** Enter the item number to be edited. Allows selection of a reminder dialog for editing.

### Notes:

- Reminder dialogs are linked to reminders by a field (REMINDER DIALOG) on the reminder definition. The reminder dialog may be used in CPRS if the reminder is due, applicable, or contained within a reminder category.

- A reminder dialog contains sentences (dialog elements) and/or groups of sentences (dialog groups) that are related to the reminder findings.

- Dialog groups can contain one or more sentences (dialog elements).

- Each sentence (dialog element) may have a number of additional prompts (e.g. date, location) or forced values (values that are automatically stuffed into a field, such as TIU Objects).

- New reminder dialogs can be created using the action AD – Autogenerate Reminder Dialog. This action appears after you select a reminder.

- The reminder dialog may be created manually or autogenerated from the reminder definition.

- The edit options allow changes to the selected reminder dialog. Keep in mind that dialog elements and prompts may be used in more than one reminder dialog. Changing one reminder dialog may affect others.

**Autogeneration** is a tool for creating reminder dialogs. It automatically adds dialog elements (sentences) to a reminder dialog, with sentence text generated from the finding name. Appropriate parameters in the Dialog Parameters files that contain the prefix (e.g., *Patient received*) and suffix text (e.g., *at this encounter*) must be completed before autogeneration can work.

Example: *Patient received* Tobacco Use Education *at this encounter*

**Reminder Dialog Types**

If you select Change View (CV), dialog types are displayed. Use the CV action to switch between dialog types. Possible dialog types are:

```
D         Reminder Dialogs
E         Dialog Elements
F         Forced Values
G         Dialog Groups
P         Additional Prompts
R         Reminders
RG        Result Group (Mental Health)
RE        Result Element (Mental Health)
```

## Dialog Fields

| Prompt | Description |
|---|---|
| NAME | This is the name of the dialog entry. Reminder dialog entries will default to the name of the reminder for ease in identifying the reminder dialog entry. Dialog elements that are auto-generated use the following naming convention: Finding type prefix _Name from finding file_ _Resolution Status.<br>Your site may want to create special namespacing for dialog entries that you create locally. |
| SOURCE REMINDER | This identifies which reminder definition is associated with this "Reminder Dialog" entry. "Reminder Dialog" type entries are the only entries that require this field. |
| DISABLE | This field disables use of this dialog when it contains text. The text should be a short message explaining why use of this dialog has been disabled, as it will be displayed if this dialog is selected. |
| TYPE | This field defines what type of dialog component this entry is. The type determines the processing that can occur with this entry. |
| CAPTION | The caption is used for prompt, dialog group, and reminder components. When a prompt has a caption defined, this is the text that should be used whenever the prompt is asked (e.g., Comment:). A dialog group can use the caption field to specify a header to use on a box around the group of dialog elements. The reminder dialog component can use the caption to specify a header to use on a box around the dialog elements for a reminder. |
| BOX | This flag will be used to determine whether the components will be presented to the user in a box. If the caption field is defined, it will appear as header text within in the top line of the box. |
| NUMBER OF INDENTS | This is the number of indents that should be made before presenting the group's components/elements. Indent is used only for dialog groups. (optional) |
| SHARE COMMON PROMPTS | This field is used only for a dialog group where different dialog elements have common prompts. Prompts will be shared for all dialog element unless otherwise selected. |
| GROUP ENTRY | Used for dialog groups only.<br>1 indicates that only one element in the dialog group may be selected.<br>2 indicates that one or more elements must be selected.<br>3 indicates that either none or one selection is required.<br>0 or null indicates no selection required. |
| COMPONENTS | This field contains the components that are used to process a reminder. Generally the components relate to the TYPE of entry in the REMINDER DIALOG file: Reminder dialogs have dialog group or dialog element components. Dialog groups have a combination of dialog element components. Dialog elements have prompt and forced value components. |
| SEQUENCE | This field specifies the order in which this item will be displayed or processed. (multiple field). |

### *Dialog Fields, cont'd*

| Prompt | Description |
|---|---|
| ITEM | This field points to a dialog which is subordinate to this dialog. NOTE: The parent dialog menu or one of its ancestors may not be entered as an item. |
| OVERRIDE PROMPT CAPTION | This text will override the caption for this component in the reminder dialog, when the component is a prompt. When the text is blank, the caption from the prompt entry will be used. |
| START NEW LINE | This flag is used to allow the user to have some control of the display of prompts related to a dialog element. |
| EXCLUDE FROM PN TEXT | This flag is used to control whether or not a component will be excluded from the progress note text when the component is acted upon. |
| REQUIRED | Additional prompt must be checked (defaults to not required). |
| DATA TYPE | This is the type of data being prompted for. |
| DOMAIN | This is a parameter that may be used to further specify the data type. The string stored here should be appropriate for the second ^-piece of DIR(0) when used with the data type field. |
| RESOLUTION TYPE | This field contains what type of resolution is represented by this dialog entry. |
| FINDING ITEM | This field contains the finding item represented by this dialog entry. |
| ORDERABLE ITEM | Orderable item from the reminder definition. |
| ADDITIONAL FINDINGS | If additional finding items should be posted if the dialog is checked then they should be entered in this field. The field is relevant to both dialog element and dialog group type records. |
| DEFAULT VALUE | This is the default value for an additional prompt. |
| FORCED VALUE | This is the value that will be used for a forced value type dialog. |
| EXCLUDE FROM PROGRESS NOTE | This field indicates that the question text of the dialog element will be excluded from the progress note. (optional). |
| PROMPT CAPTION | This is the caption that will be used for this prompt. This caption can be overridden by the OVERRIDE PROMPT CAPTION field in the ITEMS multiple, which can be more specific for the instance of the prompt. |
| DIALOG/PROGRESS NOTE TEXT | This field is only required if the text on the progress note differs from the dialog text. |
| ALTERNATE PROGRESS NOTE TEXT | This field is used to define alternate text to add to the progress note when the progress note text needs to be different from the dialog text. (e.g., Dialog/ Progress Note Text displayed is "Place Influenza Order," but the Alternate Progress Note Text is "Ordered Influenza Vaccine at this encounter."). If there is no text in this field the dialog text will be added to the progress note. |
| HIDE/SHOWGROUP | Used for dialog groups. 1 indicates that the group will be hidden until checked; 0 indicates that the group will be displayed. |
| SUPPRESS CHECKBOX | If the field is set to SUPPRESS the dialog element or group header will be displayed without a checkbox. Otherwise the WP text will be presented with a checkbox. |

***Dialog Fields, cont'd***

| Prompt | Description |
|---|---|
| INDENT PROGRESS NOTE TEXT | In a dialog group the dialog questions may be indented. This field allows the progress note text to be indented also. |
| RESULT CONDITION | CAN'T BE ALTERED EXCEPT BY PROGRAMMER. |
| EXCLUDE MH TEST FROM PN TEXT | This flag is used to control whether or not a mental health instrument questions will be excluded from the progress note text when the component is acted upon. |
| RESULT GROUP/ELEMENT | The result group or element is called on completion of a dialog and allows additional findings or progress note text to be added conditionally. Standard result groups for mental health tests are released with the package. |
| LATEST CHANGE | Date last changed. |
| AUTOGENERATED | CAN'T BE ALTERED EXCEPT BY PROGRAMMER. |
| CHANGED BY | Person making latest change to dialog. |
| AUTOGENERATED BY | Last person generating the dialog. |

### Edit/Delete Dialog

### Select Reminder by Number

If you enter a number for a reminder listed above, all dialogs for the selected reminder are displayed:

```
Dialog Selection List          May 03, 2000 10:54:16          Page:    1 of    1
REMINDER NAME: EDUTEST

Item Dialog Name                          Latest Update       Linked Reminders

This reminder is linked to dialog:

   1  EDUTEST1                            Dec 30, 1999        EDUTEST

Other dialogs generated from this reminder:

   2  EDUTEST                             Dec 23, 1999        *NONE*
   3  EDUTEST2                            Dec 24, 1999        *NONE




+         + Next Screen   - Prev Screen   ?? More Actions                >>>
AD   Autogenerate Dialog             QU   Quit
LR   Link Reminder
Select Item: Quit//
```

### Actions

**AD** Autogenerate Dialog. Allows a new reminder dialog to be generated from the reminder definition or for an existing dialog to be re-created.

**LR** Link Reminders. Many dialogs may be generated from a reminder but the reminder may only be linked to one dialog for use in CPRS. This option allows that link to be changed.

**QU** Return to previous screen.

**#** Enter the item number to be edited. Allows selection of a reminder dialog for editing.

Selecting AD to Autogenerate Dialog gives the following prompts:

```
GENERATE DIALOG AUTOMATICALLY: Y//
ENTER A UNIQUE DIALOG NAME: EDUTEST//
LINK DIALOG TO REMINDER: YES//
ENABLE DIALOG: NO//
REPLACE ANY EXISTING DIALOG ELEMENTS? NO//
```

If the reminder is not linked to a dialog, the default is to create a reminder dialog with the same name as the reminder and link the reminder to the new reminder dialog. The default is to set the dialog status to disabled so that it will not be immediately active in CPRS.

If an existing dialog name is chosen, the option is given to overwrite the existing reminder dialog.

**Select Item**

If you select a dialog item in the above screen, details of the dialog are displayed:

```
Dialog Edit List            May   12, 2000 10:02:07          Page:    1 of    5
REMINDER DIALOG NAME: SLC LIFE STYLE EDUCATION

 Sequence      Dialog Details                                          Disabled
  1            Dialog element: ED SUBSTANCE ABUSE DONE
               Resolution: DONE AT ENCOUNTER
               Finding type: EDUCATION TOPIC
               Finding item: VA-SUBSTANCE ABUSE [ED(1)]
               Additional prompts: PXRM LEVEL OF UNDERSTANDING
                                   PXRM COMMENT
                                   PXRM ADD TO PROBLEM LIST            PJH 1/26

  2            Dialog element: ED SUBSTANCE ABUSE DONE ELSEWHERE
               Resolution: DONE ELSEWHERE (HISTORICAL)
               Finding type: EDUCATION TOPIC
               Finding item: VA-SUBSTANCE ABUSE [ED(1)]
               Additional prompts: PXRM VISIT DATE
                                   PXRM COMMENT
                                   PXRM OUTSIDE LOCATION
+         + Next Screen   - Prev Screen   ?? More Actions                >>>
CO   Copy Dialog          DT   Dialog Text          RI   Reminder Inquiry
DD   Detailed Display     ED   Edit/Delete Dialog   QU   Quit
DP   Progress Note Text   INQ  Inquiry/Print
Select Element: Next Screen// 1
```

Individual dialog elements may now be edited by selecting the sequence number of the element. If the dialog element is for a taxonomy finding, the taxonomy dialog can be modified from this screen.

If the dialog element is used in other reminder dialogs, these are listed before the element is edited. If the element is in use elsewhere, it cannot be deleted.

**Actions:**

- **#** Select Sequence. To edit, delete, or add a dialog element for this reminder dialog.
- **CO** Copy Dialog. Copy this reminder dialog to a new name.
- **DD** Detailed Display. Display dialog element names and resolution detail for this reminder dialog.
- **DP** Progress Note Text. Display text that will be entered in the progress note.
- **DT** Dialog Text (default). Display the dialog text as it should appear in CPRS.
- **ED** Edit/Delete Dialog. Edit or delete this reminder dialog or existing dialog elements from this reminder dialog. Allows the sequence numbers to be changed.
- **INQ** Inquiry/Print. Print details of this reminder dialog.
- **RI** Reminder Inquiry. Display details of the associated reminder.

To customize a dialog element for the selected reminder dialog only, a copy of the selected dialog element can be made, as follows:

```
CURRENT DIALOG ELEMENT NAME: ED SUBSTANCE ABUSE DONE

     Select one of the following:

          E         Edit
          R         Copy and Replace current element
          D         Delete element from this dialog

Select Dialog Element Action: E// R Copy and Replace current element
REPLACE/COPY 'ED SUBSTANCE ABUSE DONE'  Y//<Enter> ES
ENTER A UNIQUE NAME: ED SUBSTANCE ABUSE DONE (1)  Replace

Completed copy of 'ED SUBSTANCE ABUSE DONE'
into 'ED SUBSTANCE ABUSE DONE (1)'

Replaced element'ED SUBSTANCE ABUSE DONE'
with 'ED SUBSTANCE ABUSE DONE (1)'
on this dialog.

Do you want to edit now Y// <Enter>
```

### Deleting a dialog line by sequence number

```
Dialog Edit List              Feb 14, 2000 11:51:17          Page:    1 of    1
REMINDER DIALOG NAME: AGETEST (DISABLED - DISABLED AT AUTOGENERATE)

 Sequence      Dialog Text
 10            TEXT LINE

 +         + Next Screen   - Prev Screen   ?? More Actions                >>>
CO   Copy Dialog          DT   Dialog Text          RI   Reminder Inquiry
DD   Detailed Display     ED   Edit/Delete Dialog   QU   Quit
DP   Progress Note Text   INQ  Inquiry/Print
Select Sequence: Quit// 10
```

```
CURRENT DIALOG ELEMENT NAME: SPECIAL FOR ADDITION TEST

     Select one of the following:

          E         Edit
          R         Copy and Replace current element
          D         Delete element from this dialog

Select Dialog Element Action: E// D  Delete element from this dialog
```

### Adding a sequence number and creating a new dialog element

If no elements exist, enter a sequence number to create a new element.

```
Dialog Selection List            Feb 14, 2000 11:51:25         Page:    1 of    1
REMINDER DIALOG NAME: AGETEST (DISABLED - DISABLED AT AUTOGENERATE)

 Sequence      Dialog Text


+         + Next Screen   - Prev Screen   ?? More Actions                >>>
CO   Copy Dialog          DT   Dialog Text          RI   Reminder Inquiry
DD   Detailed Display     ED   Edit/Delete Dialog   QU   Quit
DP   Progress Note Text   INQ  Inquiry/Print
Select Sequence: Quit// 1
```

```
ARE YOU ADDING 1 AS A NEW SEQUENCE NUMBER: N// Y  YES

Select new DIALOG ELEMENT: INFO TOBACCO USER
  Are you adding 'INFO TOBACCO USER' as
    a new REMINDER DIALOG? No// Y  (Yes)
   REMINDER DIALOG TYPE: E  dialog element
CURRENT DIALOG ELEMENT NAME: INFO TOBACCO USER
Used by:  AGETEST (Current Reminder Dialog)

DISABLE:
RESOLUTION TYPE:
FINDING ITEM:
DIALOG/PROGRESS NOTE TEXT:
  No existing text
  Edit? NO// YES

==[ WRAP ]==[ INSERT ]======< DIALOG WORD PROCESSING >======[ <PF1>H=Help ]====
TOBACCO USER LINE OF TEXT


<=======T=======T=======T=======T=======T=======T=======T=======T=======T>=====
ALTERNATE PROGRESS NOTE TEXT:
  No existing text
  Edit? NO// <Enter>
EXCLUDE FROM PROGRESS NOTE: <Enter>
SUPPRESS CHECKBOX: <Enter>
Select SEQUENCE: <Enter>
```

### Adding a new sequence number with an existing dialog element

```
Dialog Selection List          Feb 14, 2000 11:52:26        Page:    1 of    0
REMINDER DIALOG NAME: AGETEST (DISABLED - DISABLED AT AUTOGENERATE)

Sequence      Dialog Text
  1            TOBACCO USER LINE OF TEXT




+         + Next Screen   - Prev Screen   ?? More Actions                >>>
CO   Copy Dialog          DT   Dialog Text          RI   Reminder Inquiry
DD   Detailed Display     ED   Edit/Delete Dialog   QU   Quit
DP   Progress Note Text   INQ  Inquiry/Print
Select Sequence: Quit// 10
```

```
ARE YOU ADDING 10 AS A NEW SEQUENCE NUMBER: N// YES

Select new DIALOG ELEMENT: SP
     1   SP EXERCISE COUNSELING       dialog element
     2   SP EXERCISE COUNSELING PRIOR       dialog element
     3   SPECIAL       dialog element
     4   SPECIAL ELEMANT FOR THIS DIALOG ONLY       dialog element
     5   SPECIAL FOR ADDITION TEST       dialog element
Press <RETURN> to see more, '^' to exit this list, OR
CHOOSE 1-5: 1  SP EXERCISE COUNSELING     dialog element
```

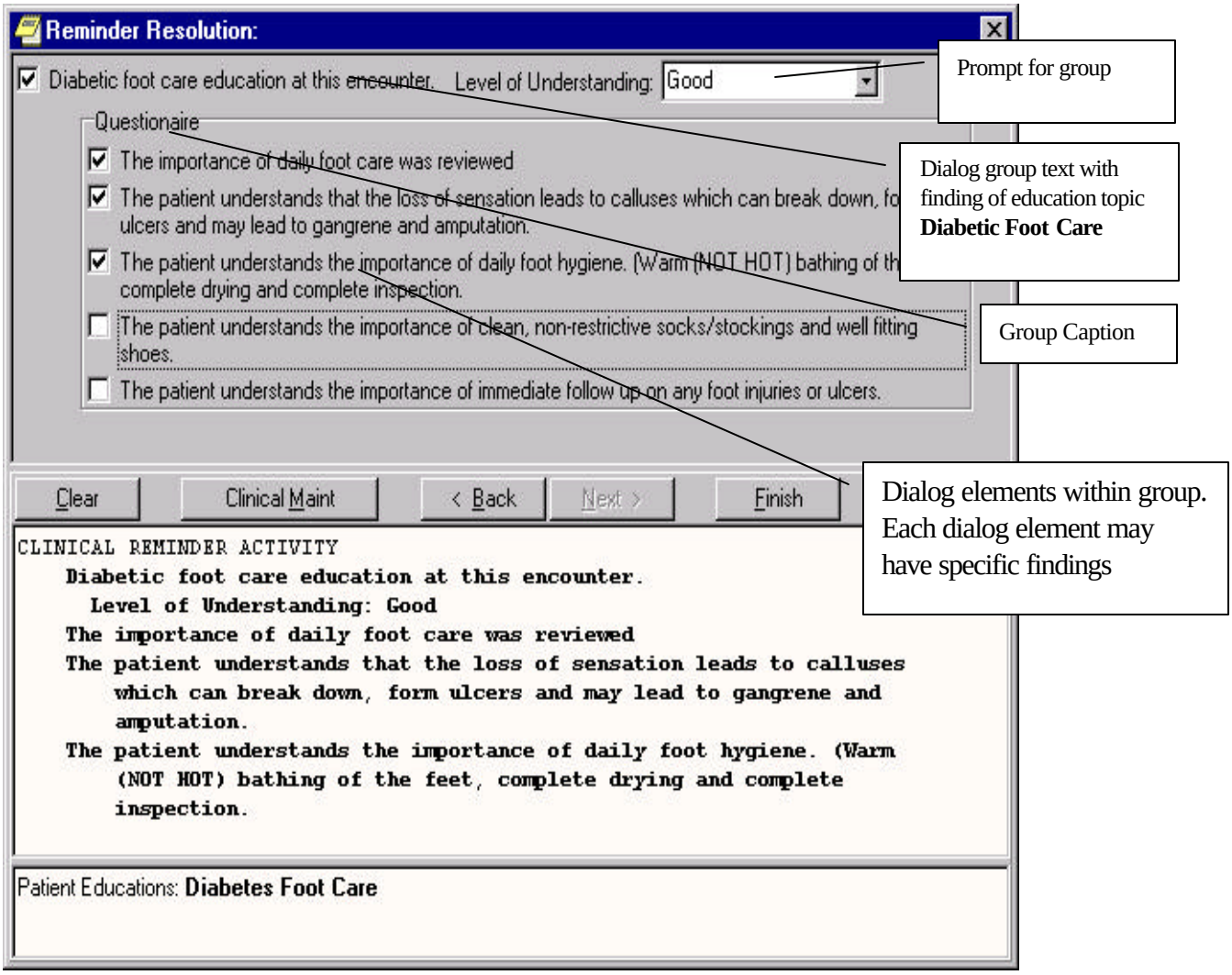
```
Dialog Selection List          Feb 14, 2000 11:52:42        Page:    1 of    1
REMINDER DIALOG NAME: AGETEST (DISABLED - DISABLED AT AUTOGENERATE)
Sequence      Dialog Text
  1            TOBACCO USER LINE OF TEXT

 10            Patient was given exercise counseling
                  Primary Diagnosis
                  Comment:
                  Add to Problem List



+         + Next Screen   - Prev Screen   ?? More Actions                >>>
CO   Copy Dialog          DT   Dialog Text          RI   Reminder Inquiry
DD   Detailed Display     ED   Edit/Delete Dialog   QU   Quit
DP   Progress Note Text   INQ  Inquiry/Print
Select Sequence: Quit//
```

**NOTE**: If you have the same CPT code entered from multiple reminders, they are all still being entered just once for the encounter, and that one entry can't have multiple values for its PCE comment field. The ability to add text only prompts should be coming in v15 of CPRS.

## Dialog Groups

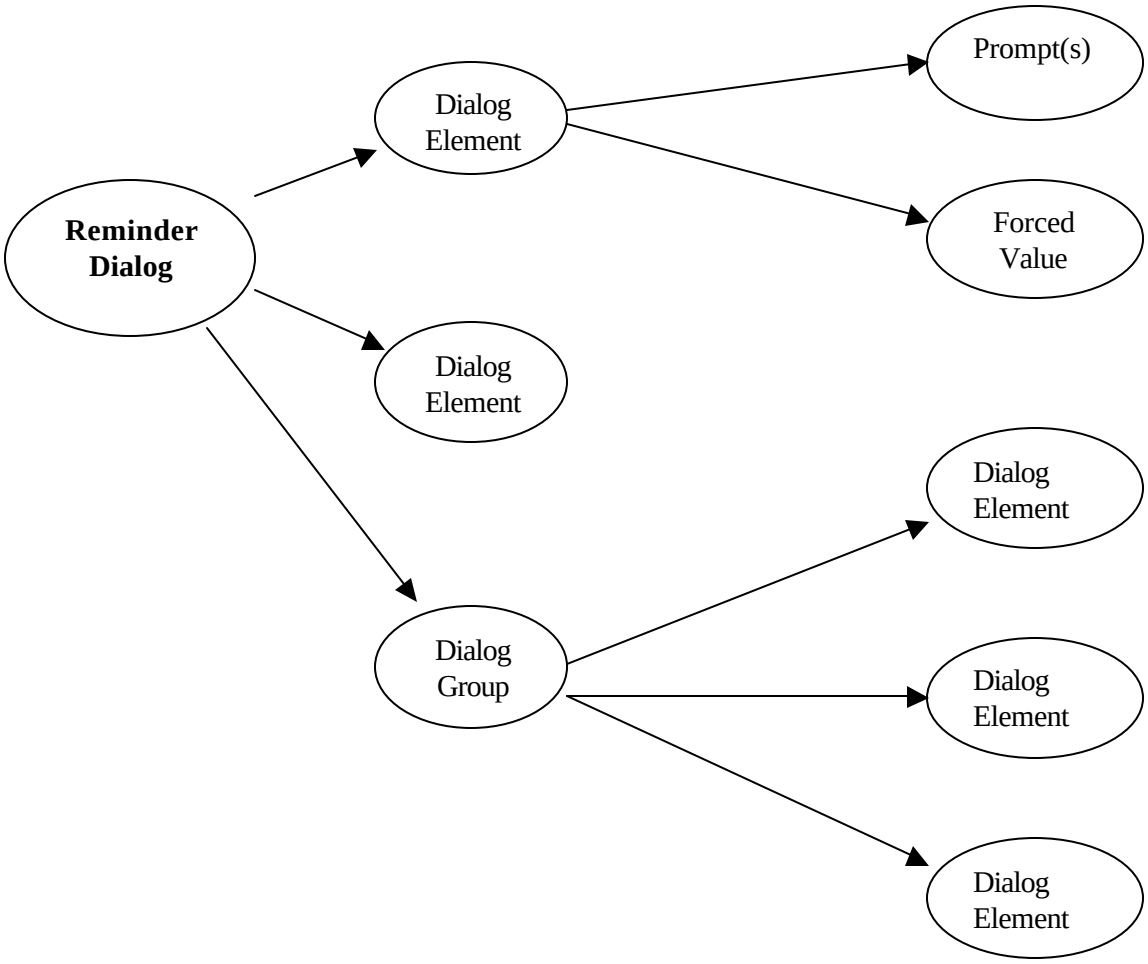
For more complicated dialogs, you can group sentences within a dialog element, using a dialog group. Dialog groups also enable you to prohibit the selection of more than one element. Dialog groups may also contain other dialog groups.

This is an example of a reminder dialog containing a single dialog group



**Structure of a dialog group**

A dialog group is similar to a dialog element, but may also contain a list of dialog elements or other dialog groups:



**Dialog Group fields**

| Prompt | Description |
|---|---|
| DISABLE | Dialog will not be displayed in CPRS if there is anything in this field. |
| RESOLUTION TYPE | Used for future reporting. |
| FINDING ITEM | Finding item to be posted to PCE, orders, or mental health tests, if the group is checked (optional). |
| GROUP CAPTION | Text to appear as box caption if there is a box round the group (not included in P/N) (optional). |
| PUT A BOX AROUND THE GROUP | A box will be drawn around the elements in the group - defaults to no box. |
| SHARE COMMON PROMPTS | If elements in the group have a common additional prompt (e.g., comment) this will be displayed only once. (optional) |
| MULTIPLE SELECTION | Enter 1 for one selection only. Enter 2 for one or more. Enter 3 for none or one selection. Enter 0 for no. selection required.<br>1 ONE SELECTION ONLY<br>2 ONE OR MORE SELECTIONS<br>3 NONE OR ONE SELECTION<br>0 NO SELECTION REQUIRED |
| HIDE/SHOW GROUP | Hide the group elements until the group checkbox is checked - defaults to show. |
| GROUP HEADER DIALOG TEXT | Text for the group checkbox (this will be added to the Progress Note). |
| GROUP HEADER P/N TEXT | Text for the P/N if this differs from the field above. (optional) |
| EXCLUDE FROM PROGRESS NOTE | Exclude the group header text from the P/N. (optional) |
| SUPPRESS CHECKBOX | Display group header with no checkbox - defaults to do not suppress. |
| NUMBER OF INDENTS | Number of indents for elements in the group. (optional) |
| INDENT PROGRESS NOTE TEXT | Indent P/N the same as the dialog - defaults to no indent. (optional) |
| ADDITIONAL FINDINGS | Additional finding items to be posted to PCE, orders, or mental health tests, when the dialog group checkbox is checked. (optional) |
| SEQUENCE | Display sequence number and dialog elements (multiple field). |

### Steps to build a dialog group

When editing dialog groups from the Change View action of reminder dialogs, you now use the same editor as that used for reminder dialogs. Dialog group elements may be edited, copied/renamed, or deleted. It is no longer necessary to build component dialog elements before building the dialog group. Elements may be created from within the dialog group screen.

To build a reminder dialog containing a group, first build the dialog group, and then add it to the reminder dialog.

1. Decide which dialog elements will appear in the dialog group.
2. In the Reminder Dialog (DI) option, select the Change View (CV) action.
3. Choose G for Groups,
4. Enter AD to add a new dialog group.
5. Enter G for Group dialog type.
6. Use a prefix in the group name that distinguishes it from other dialog elements (e.g. GP).
7. Enter the parameters for the group (text, caption text, box, hide etc). If the group has a finding item then enter any additional prompts or forced values.
8. For each dialog element in the group, enter a sequence number and the dialog element name. If the dialog element is new, it may be created within this screen.

### Adding a Dialog Group to a Reminder Dialog

1. To include the dialog group in a reminder dialog, use the Reminder Dialog (DI) option and enter the dialog group in the same manner as a dialog element.

2. Dialog and Progress note text and group parameters for the dialog group are displayed and can be edited from the DI Reminder Dialog option.

3. Test the reminder dialog within the GUI.

4. If individual dialog elements within the dialog group need modifying, use the Change View (CV) action and select E for Element to list and edit dialog elements.

**Example: HEP C RISK ASSESSMENT**

The reminder VA-HEP C RISK ASSESSMENT has risk terms/health factors that are mutually exclusive. You can create a dialog group and determine the dialog elements for the health factors.

HF PREV POSITIVE TEST FOR HEP C OTHER
HF RISK FACTOR FOR HEPATITIS C OTHER
HF NO RISK FACTORS FOR HEP C OTHER
HF DECLINED HEP C RISK ASSESSMENT OTHER

1. Choose the Reminder Dialog (DI) option to manually create a dialog group.

2. Choose the Change View (CV) action.

3. Choose G for Groups.

4. Choose AD to add a new dialog group. Use some prefix in the group name to distinguish it from other dialog elements (e.g. GP HEP C RISKS).

5. Enter the following parameters for the group (leaving all other fields blank):

| | |
|---|---|
| GROUP CAPTION: | **RISK FACTORS** |
| BOX ROUND GROUP: | **YES** |
| MULTIPLE SELECTION: | **ONE SELECTION ONLY** |
| SUPRESS CHECKBOX: | **SUPPRESS** |

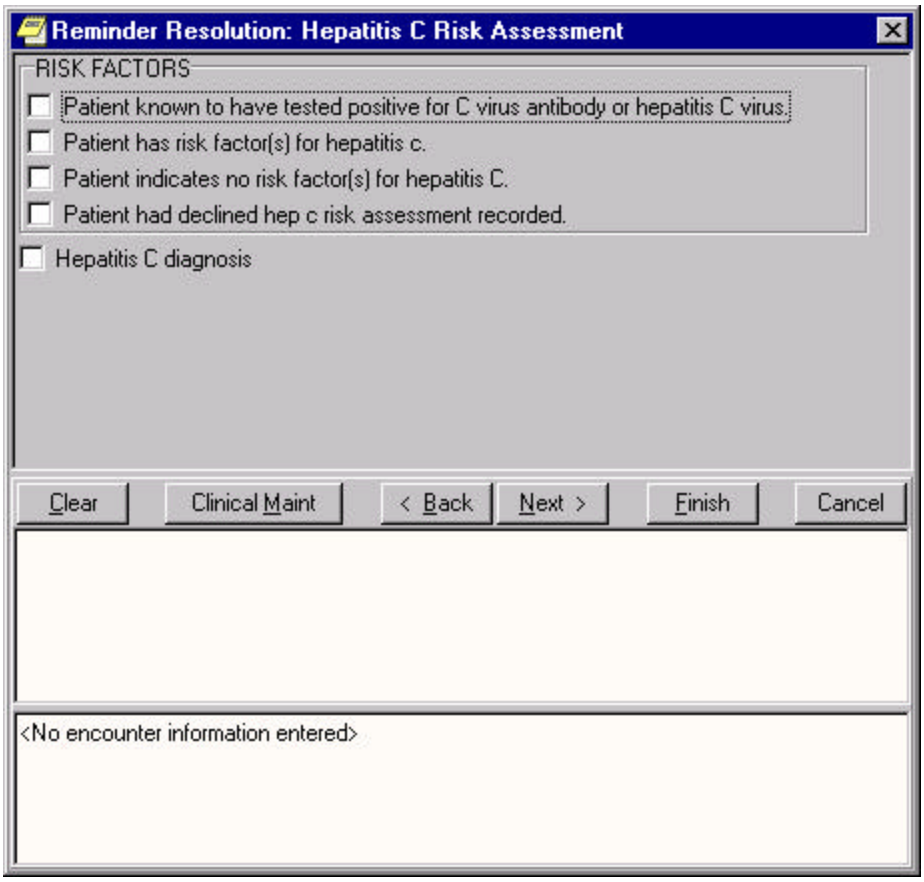
6. For each dialog element, enter a sequence number and the dialog element name.

| Seq. | Element |
|---|---|
| 1 | HF PREV POSITIVE TEST FOR HEP C OTHER |
| 2 | HF RISK FACTOR FOR HEPATITIS C OTHER |
| 3 | HF NO RISK FACTORS FOR HEP C OTHER |
| 4 | HF DECLINED HEP C RISK ASSESSMENT OTHER |

Dialog groups can be entered into a reminder dialog in the same way as a dialog element.

7. Using the DI Reminder Dialog option, remove the HF dialog elements from the VA-HEP C RISK ASSESSMENT dialog.

8. Then add group GP HEP C RISKS as a new sequence.


Reminder Resolution: Hepatitis C Risk Assessment
RISK FACTORS
Patient known to have tested positive for C virus antibody or hepatitis C virus.
Patient has risk factor(s) for hepatitis c.
Patient indicates no risk factor(s) for hepatitis C.
Patient had declined hep c risk assessment recorded.
Hepatitis C diagnosis
Clear
Clinical Maint
< Back
Next >
Finish
Cancel
<No encounter information entered>

### Including a Dialog Group in Reminder Dialog Autogeneration

For a single finding item on the reminder definition, a number of standard dialog elements are created by the autogeneration, depending on the finding type parameters within the DP Dialog Parameters menu.

For example, generating a reminder dialog for a reminder with diabetic foot care education as a finding would create three standard dialog elements:

ED DIABETES FOOT CARE DONE
ED DIABETES FOOT CARE DONE ELSEWHERE
ED DIABETES FOOT CARE REFUSED

When reminder dialogs are generated for other reminders with this finding item, the reminder dialog created will use these same standard elements.

If a dialog group should always be used for a reminder finding item in dialog autogeneration (instead of the standard dialog elements), then the dialog group can be entered in the option Finding Item Parameters for the finding item. The dialog group will then be inserted into the generated reminder dialog instead of the standard dialog elements.

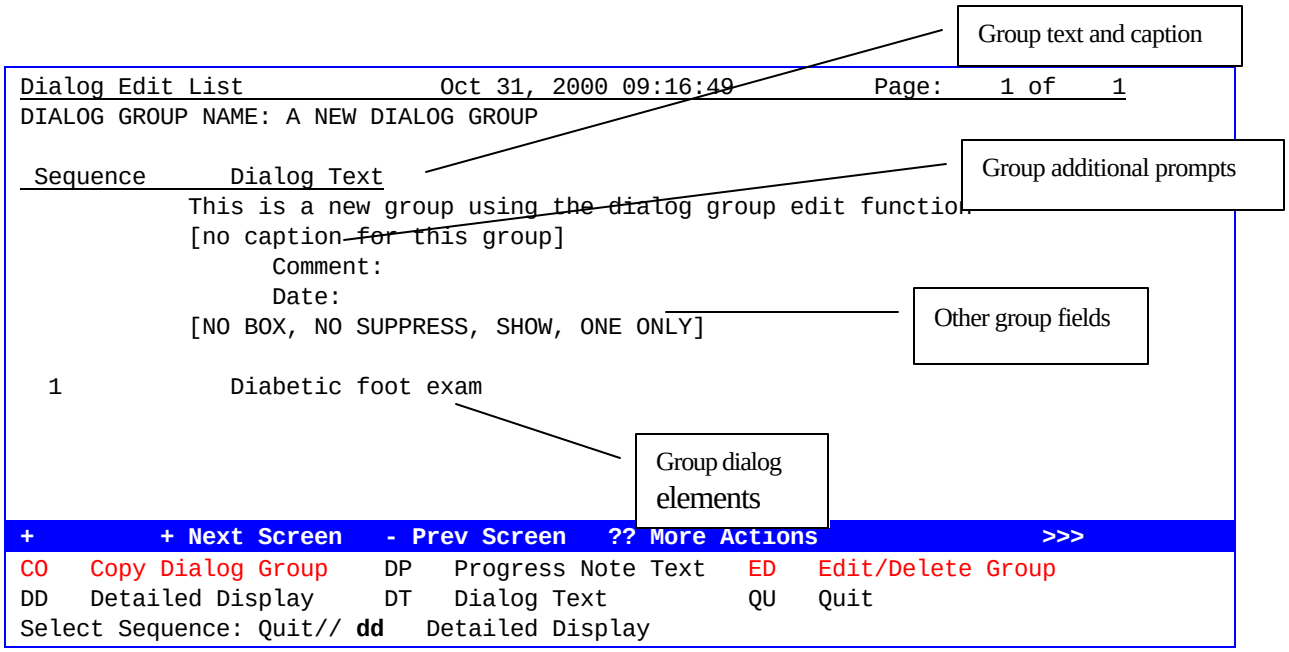
### Editing Elements in the Group

This is a new method (with patch PXRM*1.5*2) that allows groups to be edited in the same manner as reminder dialogs, by sequence number. Note that this does not change the way dialog groups can be edited from the reminder dialog screen.

**1.** Select the CV action, and then select List dialog groups. The following screen appears (unchanged). Select a dialog group (#1).

```
Dialog List                    Oct 24, 2000 15:20:56          Page:    1 of    2
DIALOG VIEW (DIALOG GROUPS)

 Item Dialog Name                                Dialog type               Status
   1  A NEW DIALOG GROUP                       Dialog Group
   2  ATS ADVANCED                               Dialog Group
   3  ATS GROUP                                  Dialog Group
   4  ATS TOBACCO                                Dialog Group
   5  Antry's Diabetic Exam Group                Dialog Group
   6  EC PNEUMO DONE                             Dialog Group
   7  ED ADVANCED DIRECTIVES DONE                Dialog Group
   8  GP DEMO GROUP                              Dialog Group
   9  GP DIABETIC FOOT                           Dialog Group
  10  GP HEP C RISKS                             Dialog Group
  11  GP IMM PNEUMO                              Dialog Group
  12  GP OPTIONS                                 Dialog Group
+         + Next Screen   - Prev Screen   ?? More Actions                 >>>
AD   Add                  CV   Change View          INQ  Inquiry/Print
CO   Copy Dialog          PT   List/Print All       QU   Quit
Select Item: Next Screen// 1
```

**2.** Select DT display to see group information at the top and group element information below:



**3**. The Detailed Display shows group findings and group additional prompts at the top and dialog elements below:

```
Dialog Edit List              Oct 31, 2000 09:17:02          Page:    1 of    1
DIALOG GROUP NAME: A NEW DIALOG GROUP

 Sequence      Dialog Details                                          Disabled
               Finding type: HEALTH FACTOR
               Finding item: HEAVY DRINKER (3 OR MORE/DAY) [HF(17)]
               Additional prompts: PXRM COMMENT
                                   PXRM VISIT DATE

  1            Dialog element: SP DIABETIC FOOT
               Resolution: DONE AT ENCOUNTER
               Finding type: EXAM
               Finding item: DIABETIC FOOT CHECK [EX(27)]

+         + Next Screen   - Prev Screen   ?? More Actions                >>>
CO   Copy Dialog Group    DP   Progress Note Text   ED   Edit/Delete Group
DD   Detailed Display     DT   Dialog Text          QU   Quit
Select Sequence: Quit// ed   Edit/Delete Group
```

**4.** Edit/Delete Group allows the group fields to be edited:

```
Not used by any other dialog

NAME: A NEW DIALOG GROUP// <Enter>
DISABLE: <Enter>
RESOLUTION TYPE: <Enter>
FINDING ITEM: HEAVY DRINKER (3 OR MORE/DAY)// <Enter>
GROUP CAPTION: <Enter>
PUT A BOX AROUND THE GROUP: NO// <Enter>
SHARE COMMON PROMPTS: <Enter>
MULTIPLE SELECTION: ONE SELECTION ONLY// <Enter>
HIDE/SHOW GROUP: SHOW// <Enter>
GROUP HEADER DIALOG TEXT: <Enter>
This is a new group using the dialog group edit function

  Edit? NO// <Enter>
GROUP HEADER ALTERNATE P/N TEXT: <Enter>
  No existing text
  Edit? NO// <Enter>
EXCLUDE FROM PROGRESS NOTE: <Enter>
SUPPRESS CHECKBOX: <Enter>
NUMBER OF INDENTS: <Enter>
INDENT PROGRESS NOTE TEXT: <Enter>
Select ADDITIONAL FINDINGS: <Enter>
Select SEQUENCE: 3//<Enter>
  SEQUENCE: 3// <Enter>
  DIALOG ELEMENT: PXRM VISIT DATE//<Enter>
```

**5.** New elements may be added to the group by entering a new sequence number, just as with reminder dialogs. Existing elements may be selected by sequence number and edited, copied, or deleted from the dialog:

```
Dialog Edit List              Oct 31, 2000 09:27:52          Page:    1 of    1
DIALOG GROUP NAME: A NEW DIALOG GROUP

 Sequence      Dialog Details                                            Disabled
               Finding type: HEALTH FACTOR
               Finding item: HEAVY DRINKER (3 OR MORE/DAY) [HF(17)]
               Additional prompts: PXRM COMMENT
                                   PXRM VISIT DATE

  1            Dialog element: SP DIABETIC FOOT
               Resolution: DONE AT ENCOUNTER
               Finding type: EXAM
               Finding item: DIABETIC FOOT CHECK [EX(27)]


+         + Next Screen   - Prev Screen   ?? More Actions                >>>
CO   Copy Dialog Group    DP   Progress Note Text   ED   Edit/Delete Group
DD   Detailed Display     DT   Dialog Text          QU   Quit
Select Sequence: Quit// 10
```

```
ARE YOU ADDING 10 AS A NEW SEQUENCE NUMBER: N// y  YES

Select new DIALOG ELEMENT:    ED DIABETES FOOT CARE REFUSED     dialog element
         ...OK? Yes// <Enter>  (Yes)
```

```
Dialog Edit List              Oct 31, 2000 09:27:57          Page:    1 of    2
DIALOG GROUP NAME: A NEW DIALOG GROUP

 Sequence      Dialog Details                                            Disabled
               Finding type: HEALTH FACTOR
               Finding item: HEAVY DRINKER (3 OR MORE/DAY) [HF(17)]
               Additional prompts: PXRM COMMENT
                                   PXRM VISIT DATE

  1            Dialog element: SP DIABETIC FOOT
               Resolution: DONE AT ENCOUNTER
               Finding type: EXAM
               Finding item: DIABETIC FOOT CHECK [EX(27)]

 10            Dialog element: ED DIABETES FOOT CARE REFUSED
               Resolution: PATIENT REFUSED
               Finding type: EDUCATION TOPIC
               Finding item: VA-DIABETES FOOT CARE [ED(359)]
               Additional prompts: PXRM REFUSED (forced value)
                                   PXRM COMMENT
+         + Next Screen   - Prev Screen   ?? More Actions                >>>
CO   Copy Dialog Group    DP   Progress Note Text   ED   Edit/Delete Group
DD   Detailed Display     DT   Dialog Text          QU   Quit
Select Sequence: Next Screen// 1
```

```
CURRENT DIALOG ELEMENT NAME: SP DIABETIC FOOT

     Select one of the following:

          E         Edit
          C         Copy and Replace current element
          D         Delete element from this dialog

Select Dialog Element Action: E//
```

**NOTE**: If a dialog group has findings at the group level (as in the above example), the additional prompts/forced values for the group are entered via ED Edit/Delete Group. *Only dialog elements and dialog groups may be entered by sequence number.*

### Different Dialog and Progress Note Text

If you wish to have the progress note text different from the dialog text, you can use the action DD, Progress Note Text to create separate text. This is useful when the dialog text doesn't make sense in the context of a Progress Note. For example, if you would like the display to the user to have a prompt for "Enter Order for PPD," but would like the text that appears in the progress note to say "PPD Ordered," this feature will allow you to do that.

An optional field, ALTERNATEPROGRESS NOTE TEXT, should be entered if you wish to have the progress note text different from the dialog text. If this field is not entered, the dialog text will be entered into the progress note.

### Text formatting

When the Result Dialog progress note text is entered into the word processing field, you have some control over the way the text is displayed in the CPRS GUI. To have the text appear in the GUI as it is in the word-processing lines, each line needs to start with a space. Lines that begin with text will be treated as if they can be wrapped or appended to the previous line, while the word processing lines will be treated as if they are "line mode" text (i.e., without word wrap) if there is a blank at the beginning of the line. Keep in mind the number of characters that will be available to print the line. Remember that CPRS uses indentations defined in the dialogs. If the line mode text ends up longer than the screen can display, the remaining text will be displayed on the next line by itself. The text will not be wrapped and concatenated with the next line's text as long as the next line starts with a space. Blank lines may be included to further format lines. A blank line will be treated as starting with a space.

```
Dialog Edit List              Feb 04, 2000 15:37:20         Page:    1 of    2
REMINDER DIALOG NAME: 571 SECOND TEST (DISABLED - DISABLED AT AUTOGENERATE)
 Sequence      Dialog Text
  2            Education done previously.
                  Date:
                  Comment:
  3            Declined.
                  PXRM REFUSED (forced value)
                  Comment:
  4            Advanced directives education done.
                  Level of Understanding:
                  Comment:
  5            Education outside the VA.
                  Date:
                  Comment:
+        + Next Screen   - Prev Screen   ?? More Actions                 >>>
CO   Copy Dialog          DT   Dialog Text           RI  Reminder Inquiry
DD   Detailed Display     ED   Edit/Delete Dialog    QU  Quit
DP   Progress Note Text   INQ  Inquiry/Print
Select Sequence: Next Screen//DP
```

### *Text formatting, cont'd*

The DP action allows display of the progress note text:

```
Dialog Edit List              Feb 04, 2000 15:37:20         Page:    1 of    2
REMINDER DIALOG NAME: 571 SECOND TEST (DISABLED - DISABLED AT AUTOGENERATE)
 Sequence      Progress Note Text
  2          Patient received advanced directive screening education outside t
                  Date:
                  Comment:
  3          Patient declined advanced directive screening education at this e
                  PXRM REFUSED (forced value)
                  Comment:
  4          Patient had advanced directives education at this encounter.
                  Level of Understanding:
                  Comment:
  5          Patient received advanced directives education outside the VA.
                  Date:
                  Comment:
 +         + Next Screen   - Prev Screen   ?? More Actions                >>>
CO   Copy Dialog          DT   Dialog Text           RI  Reminder Inquiry
DD   Detailed Display     ED   Edit/Delete Dialog    QU  Quit
DP   Progress Note Text   INQ  Inquiry/Print
Select Sequence: Next Screen//2
```

```
CURRENT DIALOG ELEMENT NAME: ED ADVANCED DIRECTIVE SCREENIN DONE ELSE

     Select one of the following:

          E         Edit
          R         Replace/Copy current element
          D         Delete element from this dialog

Select Dialog Element Action: E// <Enter> dit
Dialog Element Type: E//??

Enter G to change the current dialog element into a dialog group so
that additional elements can be added. Enter E to leave the type of
the dialog element unchanged.

Dialog Element Type: E// <Enter> lement
CURRENT DIALOG ELEMENT NAME: ED ADVANCED DIRECTIVE SCREENIN DONE ELSE
Used by:  571 SECOND TEST (Current Reminder Dialog)

DISABLE: <Enter>
RESOLUTION TYPE: DONE ELSEWHERE (HISTORICAL)// <Enter>
FINDING ITEM: VA-ADVANCED DIRECTIVES SCREENING// <Enter>
DIALOG/PROGRESS NOTE TEXT: <Enter>
Patient received advanced directive screening education outside the VA.

  Edit? NO// <Enter>
ALTERNATE PROGRESS NOTE TEXT:
Education done previously.
  Edit? NO// <Enter>

EXCLUDE FROM PROGRESS NOTE: <Enter>
SUPPRESS CHECKBOX: <Enter>
```

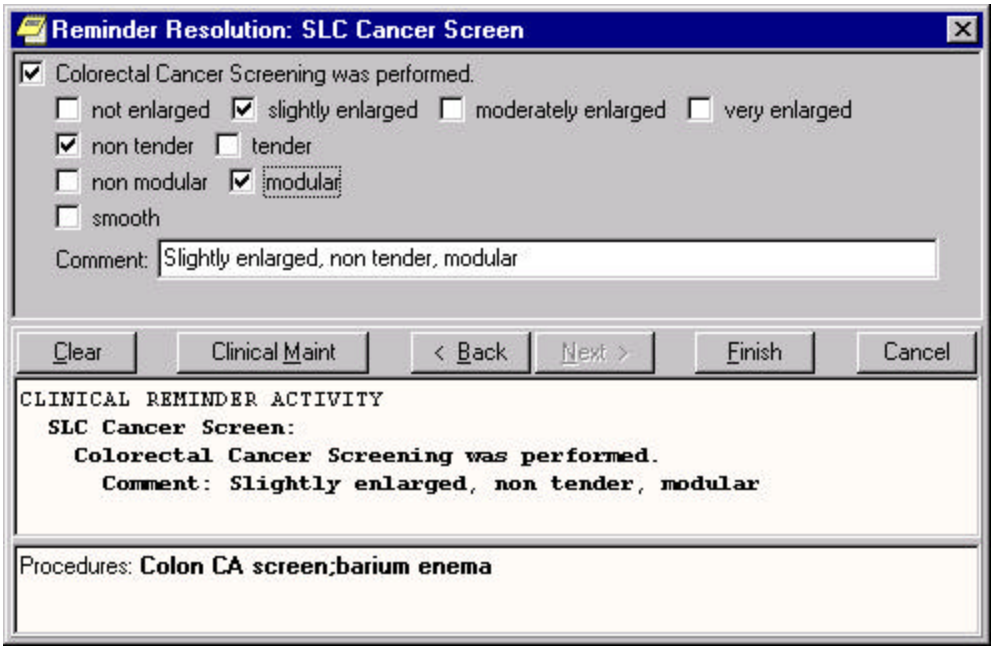
### *Text formatting, cont'd*

```
Select ADDITIONAL FINDINGS: ?
     You may enter a new ADDITIONAL FINDINGS, if you wish
     Enter additional finding items for this dialog element.
     Enter one of the following:
       ED.EntryName to select a EDUCATION TOPICS
       IM.EntryName to select a IMMUNIZATIONS
       ST.EntryName to select a SKIN TEST
       EX.EntryName to select a EXAM
       HF.EntryName to select a HEALTH FACTORS
       CPT.EntryName to select a PROCEDURE
       ICD9.EntryName to select a ICD9 DIAGNOSIS
       VM.EntryName to select a VITAL TYPE
       Q.EntryName to select a ORDER DIALOG

     To see the entries in any particular file type <Prefix.?>

Select ADDITIONAL FINDINGS: <Enter>
RESULT GROUP/ELEMENT: ??
     The result group or element is called on completion of a dialog and allows
     additional findings or progress note text to be added conditionally.
     Standard result groups for mental health tests are released with the
     package.

Choose from:
   AIMS RESULT ELEMENT 1        result element
   AIMS RESULT GROUP        result group
   AIMS RESULT GROUP        result group
   AUDC RESULT ELEMENT 1        result elementSelect SEQUENCE: 2// <Enter>
  SEQUENCE: 2// <Enter>
  ADDITIONAL PROMPT/FORCED VALUE: PXRM COMMENT// <Enter>
  OVERRIDE PROMPT CAPTION: <Enter>
  START NEW LINE: <Enter>
  EXCLUDE FROM PN TEXT: <Enter>
  REQUIRED
```

### Creating Comments from dialog elements

You can use prompt elements to build a comment, as shown in the following example:

The Colorectal Cancer element for this dialog has (site-specific) additional prompts. These are included in the comment box when checked.




This is a dialog element for colorectal cancer:

```
Dialog Name:  JM COLORECTAL CANCER SCREENING

CURRENT DIALOG ELEMENT/GROUP NAME: JM COLORECTAL CANCER SCREENING
Used by:  JM DIALOG FOR DIABETIC EXAM (Reminder Dialog)

DISABLE: <Enter>
RESOLUTION TYPE: <Enter>
FINDING ITEM: G0106// <Enter>
DIALOG/PROGRESS NOTE TEXT:
Colorectal Cancer Screening

  Edit? NO// <Enter>
ALTERNATE PROGRESS NOTE TEXT:
  No existing text
  Edit? NO// <Enter>
EXCLUDE FROM PROGRESS NOTE: <Enter>
SUPPRESS CHECKBOX: <Enter>
Select ADDITIONAL FINDINGS: <Enter>
RESULT GROUP/ELEMENT: <Enter>
```

### *Creating Comments from dialog elements, cont'd*

```
Select SEQUENCE: 16// ?
 Answer with COMPONENTS SEQUENCE, or ITEM
Choose from:
   1      JM NOT ENLARGED
   2      JM SLIGHTLY ENLARGED
   4      JM MODERATELY ENLARGED
   5      JM VERY ENLARGED
   10     JM NON TENDER
   11     JM TENDER
   15     JM NON MODULAR
   16     JM MODULAR
   50     PXRM COMMENT
```

Note that the additional prompts for the element consist of a standard PXRM COMMENT prompt and several local prompts. The prompt caption is the text that is added to the comment box. Create the local prompts from the CV option:

```
Select Item: Next Screen// cv   Change View
     Select one of the following:
          D         Reminder Dialogs
          E         Dialog Elements
          F         Forced Values
          G         Dialog Groups
          P         Additional Prompts
          R         Reminders
          RG        Result Group (Mental Health)
          RE        Result Element (Mental Health)
TYPE OF VIEW: R// p  Additional Prompts
```

```
Selection List              Mar 15, 2000 11:50:40          Page:    1 of    2
DIALOG VIEW (ADDITIONAL PROMPTS)

 Item Dialog Name                                Dialog type              Status
   1  JM ADD TO PROBLEM LIST                     Additional Prompt        Disabled
   2  JM LEVEL OF SEVERITY                       Additional Prompt
   3  JM MODERATELY ENLARGED                     Additional Prompt
   4  JM MODULAR                                 Additional Prompt
   5  JM NON MODULAR                             Additional Prompt
   6  JM NON TENDER                              Additional Prompt
   7  JM NOT ENLARGED                            Additional Prompt
   8  JM SLIGHTLY ENLARGED                       Additional Prompt
   9  JM TENDER                                  Additional Prompt
  10  JM TEST PROMPT                             Additional Prompt
  11  JM VERY ENLARGED                           Additional Prompt
  12  PXRM ADD TO PROBLEM LIST                   Additional Prompt
  13  PXRM COMMENT                               Additional Prompt
  14  PXRM CONTRAINDICATED                       Additional Prompt
  15  PXRM LEVEL OF SEVERITY                     Additional Prompt
  16  PXRM LEVEL OF UNDERSTANDING                Additional Prompt
+         + Next Screen   - Prev Screen   ?? More Actions                 >>>
AD   Add                 CV   Change View          INQ  Inquiry/Print
CO   Copy Dialog         PT   List/Print All       QU   Quit
Select Item: Next Screen// 4
```

### *Creating Comments from dialog elements, cont'd*

```
Dialog Name:  JM MODULAR

CURRENT DIALOG ELEMENT/GROUP NAME: JM MODULAR
Used by:  JM COLORECTAL CANCER SCREENING (Dialog Element)

DISABLE Prompt: <Enter>
PROMPT CAPTION: modular// <Enter>
EXCLUDE FROM PROGRESS NOTE: <Enter>
DEFAULT VALUE: <Enter>
RESTRICTED TO FINDING TYPE: <Enter>
```

## Comment Prompts

### Reminder dialog with dialog group, dialog elements, and comment prompts:

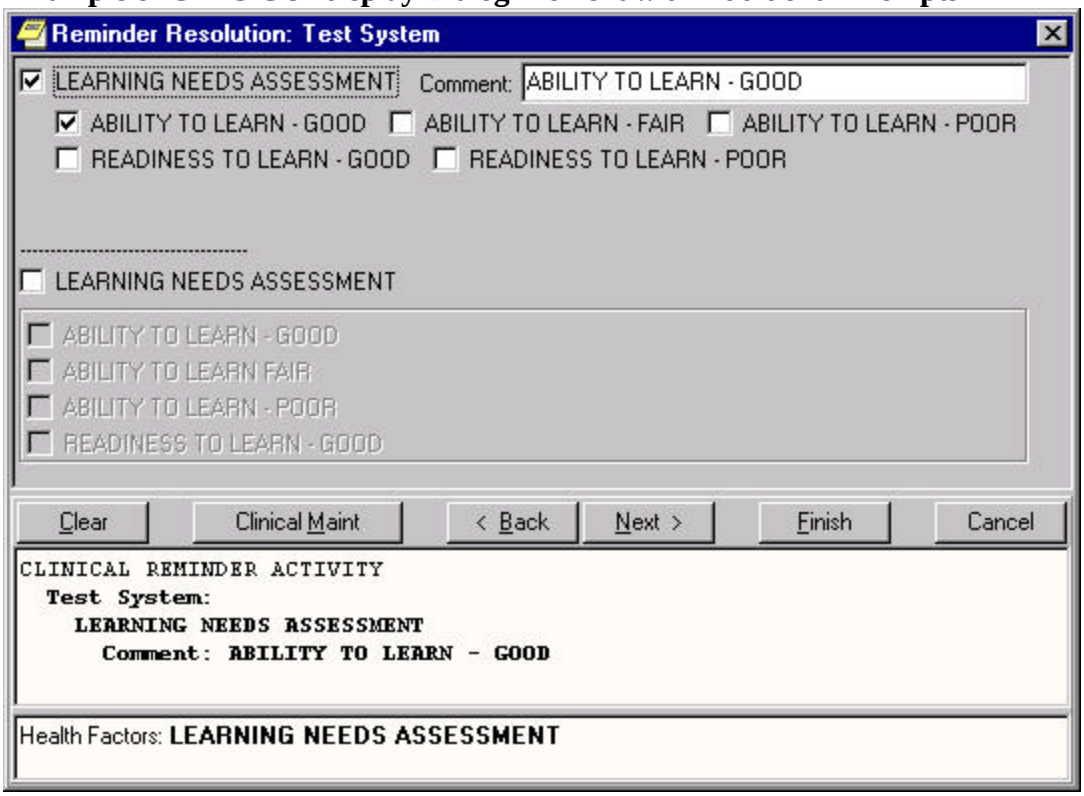
```
Dialog Edit List              Nov 01, 2000 11:34:20          Page:    1 of    2
REMINDER DIALOG NAME: PJH TEST PATCH 2
Sequence      Dialog Details                                              Disabled
  5            Dialog element: LEARNING NEEDS ELEMENT
               Finding type: HEALTH FACTOR
               Finding item: LEARNING NEEDS ASSESSMENT [HF(4)]
               Additional prompts: PXRM COMMENT
                                   ABILITY GOOD PROMPT
                                   ABILITY FAIR PROMPT
                                   ABILITY POOR PROMPT     ***local prompts***
                                   READINESS GOOD PROMPT
                                   READINESS POOR PROMPT

 10            Dialog element: SP SPACER

 15            Dialog group: LEARNING NEEDS GROUP
               Dialog elements:    1  PXRM COMMENT
                                   5  ABILITY GOOD
                                   10 ABILITY FAIR     ***dialog elements***
                                   15 ABILITY POOR
                                   20 READINESS GOOD
+         + Next Screen   - Prev Screen   ?? More Actions                  >>>
CO   Copy Dialog          DT   Dialog Text          RI   Reminder Inquiry
DD   Detailed Display     ED   Edit/Delete Dialog   QU   Quit
DP   Progress Note Text   INQ  Inquiry/Print
Select Sequence: Next Screen//
```

### Details of the dialog group

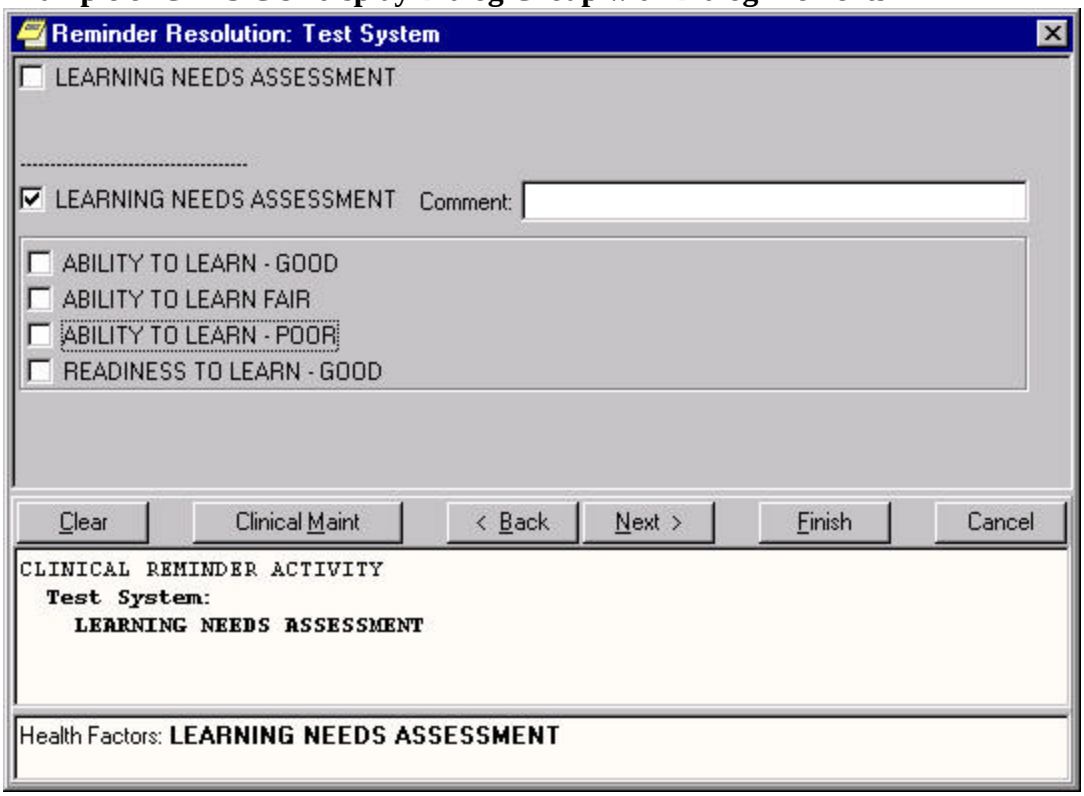
```
CURRENT DIALOG ELEMENT/GROUP NAME: LEARNING NEEDS GROUP
Used by:  PJH TEST PATCH 2 (Current Reminder Dialog)
DISABLE:
RESOLUTION TYPE: DONE AT ENCOUNTER//
FINDING ITEM: LEARNING NEEDS ASSESSMENT//
GROUP CAPTION:
PUT A BOX AROUND THE GROUP: YES//
SHARE COMMON PROMPTS:
MULTIPLE SELECTION:
HIDE/SHOW GROUP: SHOW//
GROUP HEADER DIALOG TEXT:
LEARNING NEEDS ASSESSMENT

  Edit? NO//
GROUP HEADER ALTERNATE P/N TEXT:
  No existing text
  Edit? NO//
EXCLUDE FROM PROGRESS NOTE:
SUPPRESS CHECKBOX:
NUMBER OF INDENTS:
INDENT PROGRESS NOTE TEXT:
```

```
Select ADDITIONAL FINDINGS:
Select SEQUENCE: ?
    Answer with COMPONENTS SEQUENCE, or ITEM
   Choose from:
   1       PXRM COMMENT
   5       ABILITY GOOD
   10      ABILITY FAIR
   15      ABILITY POOR
   20      READINESS GOOD
```

**Example of CPRS GUI display Dialog Element with Additional Prompts**



**Example of CPRS GUI display Dialog Group with Dialog Elements**




**NOTE**: If you have the same CPT code entered from multiple reminders, they are all still being entered just once for the encounter, and that one entry can't have multiple values for its PCE comment field. The ability to add text only prompts should be coming in v15 of CPRS.

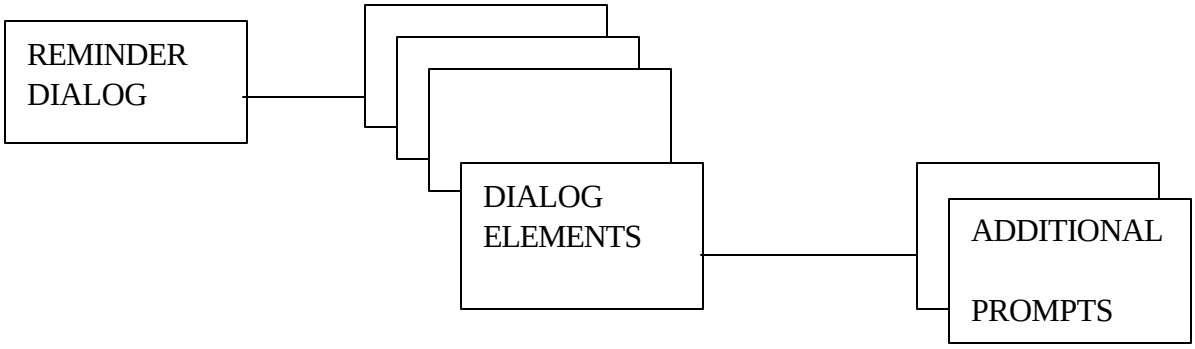
*See NOIS "EKH-1000-42980, Additional Prompts Overwriting Each Other."*

### Changing a Dialog Element into a Dialog Group

Dialog elements can be changed into groups, using Edit/Delete Dialog (ED).

```
Dialog Selection List          Mar 03, 2000 10:02:04          Page:    1 of    2
REMINDER DIALOG NAME: 571 TEST
 Sequence     Dialog Text
  5           Patient had advanced directive screening education at this encoun
                  Level of Understanding:
                  Comment:
               [no caption for this group]


 10           Patient had tobacco use screening education at this encounter.
                  Level of Understanding:
                  Comment:
               Questionnaire [group caption]


 10.3          Barrier to learning.
+         + Next Screen   - Prev Screen   ?? More Actions                >>>
CO   Copy Dialog          DT   Dialog Text          RI   Reminder Inquiry
DD   Detailed Display     ED   Edit/Delete Dialog   QU   Quit
DP   Progress Note Text   INQ  Inquiry/Print

Select Sequence: Next Screen// 15
------------------------------------------------------------------------------
CURRENT DIALOG ELEMENT NAME: VM BP DONE

     Select one of the following:

          E         Edit
          C         Copy and Replace current element
          D         Delete element from this dialog

Select Dialog Element Action: E// e  Edit
Dialog Element Type: E// g  Group
Dialog element changed to a dialog group
CURRENT DIALOG ELEMENT/GROUP NAME: VM BP DONE
 etc...
```

**DIALOG STRUCTURE**



**Result Dialogs**

Result dialogs contain progress note text that is added to a progress note, based on the results of dialog processing. (In the first release of Clinical Reminders V. 1.5, only Mental Health Instrument results can be used.)

Some reminder definitions will have Finding Items for MH Instruments. When dialog entries are generated for these reminders, a dialog element will be created for each MH Instrument finding. If a site doesn't want to see mental health instrument questions and answers added into the progress note, they can control whether to include the questions and answers by answering Yes to the EXCLUDE MH TEST FROM PN TEXT field in the dialog element.

```
        EXCLUDE MH TEST FROM PN TEXT 0;14 SET
                             '1' FOR YES;
                             '0' FOR NO;
           HELP-PROMPT:    Enter Y to stop test questions and answers from being
                           added to the note text.
           DESCRIPTION:    This flag is used to control whether or not
                           mental health test questions and answers will be excluded
                           from the progress note text when the test is taken.
```

When the user enters answers to a mental health instrument, the answers are automatically passed to the Mental Health package to calculate a result, which may be referenced as SCORE. For example, CAGE test has a SCORE from 1-4 and GAF has a SCORE from 1-99.

For most Mental Health tests, progress note text can be automatically generated that summarizes or includes the results (SCORE). Default text is distributed in the REMINDER DIALOG file #801.41 for sites to use for each Mental Health instrument processed in the reminder resolution process. This text may be copied and modified to reflect the site's preferences for text. The default text is defined in Mental Health Result Dialog Elements. The reminder manager must add the Result Dialog Elements to the MH Instruments Dialog Element RESULT GROUP/ ELEMENT field. This result dialog may define further processing to conditionally generate progress note text based on the SCORE.

The Result Dialog Elements provide a number of fields for flexible use of progress note text.

```
RESULT CONDITION:    Enter M code which, when evaluated to 1, would generate the
progress note text and create finding entries defined in the RESULT DIALOG ELEMENT.
Currently, The logic can only use the value stored in an M local variable called
SCORE.

ALTERNATE PROGRESS NOTE TEXT:  Enter the word processing text to add to the progress
note.  Use a blank space in the first character of a line when you want the line to
be printed as it appears in the text.  The "|" (vertical bar) may be used around the
M variable SCORE to include the score within the text (MH Tests only).  Response
values may be included in the text for the AIMS test only, and limited to the
variables specified in the default AIMS text.
```

Example of one of the CAGE Result Dialog Elements distributed with the package:

```
NAME: CAGE RESULT ELEMENT 1  Replace <Enter>
RESULT CONDITION: I SCORE<2// <Enter>
ALTERNATE PROGRESS NOTE TEXT: <Enter>
An alcohol screening test (CAGE) was negative (score=|SCORE|).
```

### Mental Health Test Dialogs

Dialogs for mental health tests can be set up in Clinical Reminders. A reminder definition can include any mental health instrument, but the reminder GUI resolution process will currently only work with the following instruments:

AIMS, AUDT, BDI, CAGE, DOM80, DOMG, MISS, and ZUNG

NOTE: YS*5.01*53 is required to use Mental Health reminders. Patch YS*5.01*62 is needed to do mental health tests in a reminder dialog. Patch YS*5.01*64 is required to be able to save GAF information, in either a reminder dialog or on the Encounter form.

A dialog element with a Mental Health Instrument finding may be created or autogenerated from the reminder definition as follows:

```
Dialog Selection List           Mar 10, 2000 10:47:11          Page:    1 of    0
REMINDER DIALOG NAME: MHTEST1
Sequence      Dialog Details                                            Disabled
  5            Dialog element: PXRM ZUNG
               Finding type: MENTAL HEALTH INSTRUMENT
               Finding item: ZUNG [MH(87)]
               Result name: ZUNG

+         + Next Screen   - Prev Screen   ?? More Actions                >>>
CO   Copy Dialog          DT   Dialog Text          RI   Reminder Inquiry
DD   Detailed Display     ED   Edit/Delete Dialog   QU   Quit
DP   Progress Note Text   INQ  Inquiry/Print
Select Sequence: Quit//
```

The text of the dialog is derived from the mental health package and cannot be modified using the Reminder Dialogs option.

Score-based progress note text is generated from the Dialog Result Groups/Elements entered in the result field of the dialog element. The following result groups are released with the package:

```
Dialog List                Mar 10, 2000 10:59:26          Page:    1 of    1
DIALOG VIEW (RESULT GROUPS)
Item Dialog Name                                Dialog type              Status
   1  PXRM AIMS RESULT GROUP                     Result Group
   2  PXRM AUDC RESULT GROUP                     Result Group
   3  PXRM AUDIT RESULT GROUP                    Result Group
   4  PXRM BDI RESULT GROUP                      Result Group
   5  PXRM CAGE RESULT GROUP                     Result Group
   6  PXRM DOM80 RESULT GROUP                    Result Group
   7  PXRM DOMG RESULT GROUP                     Result Group
   8  PXRM MISS RESULT GROUP                     Result Group
   9  PXRM ZUNG RESULT GROUP                     Result Group
+         + Next Screen   - Prev Screen   ?? More Actions                >>>
AD   Add                  CV   Change View          INQ  Inquiry/Print
CO   Copy Dialog          PT   List/Print All       QU   Quit
Select Item: Quit//
```

***Mental Health Test Dialogs, cont'd***

This is the Inquiry/Print for result group ZUNG:

```
Select Item: Quit// I   Inquiry/Print
Select Dialog Definition: PXRM ZUNG RESULT GROUP       result group
         ...OK? Yes// <Enter>   (Yes)


DEVICE: <Enter>  ANYWHERE    Right Margin: 80// <Enter>
REMINDER DIALOG INQUIRY                    Apr 14, 2000 10:17:35 am  Page 1
------------------------------------------------------------------------------

        NUMBER: 207
                          Name:  PXRM ZUNG RESULT GROUP
                          Type:  result group
                Exclude from PN:

 GROUP COMPONENTS:

         Sequence:  1
   Result Element:  ZUNG RESULT ELEMENT 1
Element Condition:  I SCORE<33
    Element text:
     A mood disorder screening test (ZUNG) was in the low range (score =
     |SCORE|).

         Sequence:  2
   Result Element:   ZUNG RESULT ELEMENT 2
Element Condition:  I (SCORE>32)&(SCORE<51)
    Element text:
     A mood disorder screening test (ZUNG) was in the medium range (score =
     |SCORE|).


         Sequence:  3
   Result Element:   ZUNG RESULT ELEMENT 3
Element Condition:  I SCORE>50
    Element text:
     A mood disorder screening test (ZUNG) was in the high range (score =
     |SCORE|).
```

If the test results in a score of 66, then a progress note entry is created including the actual score:

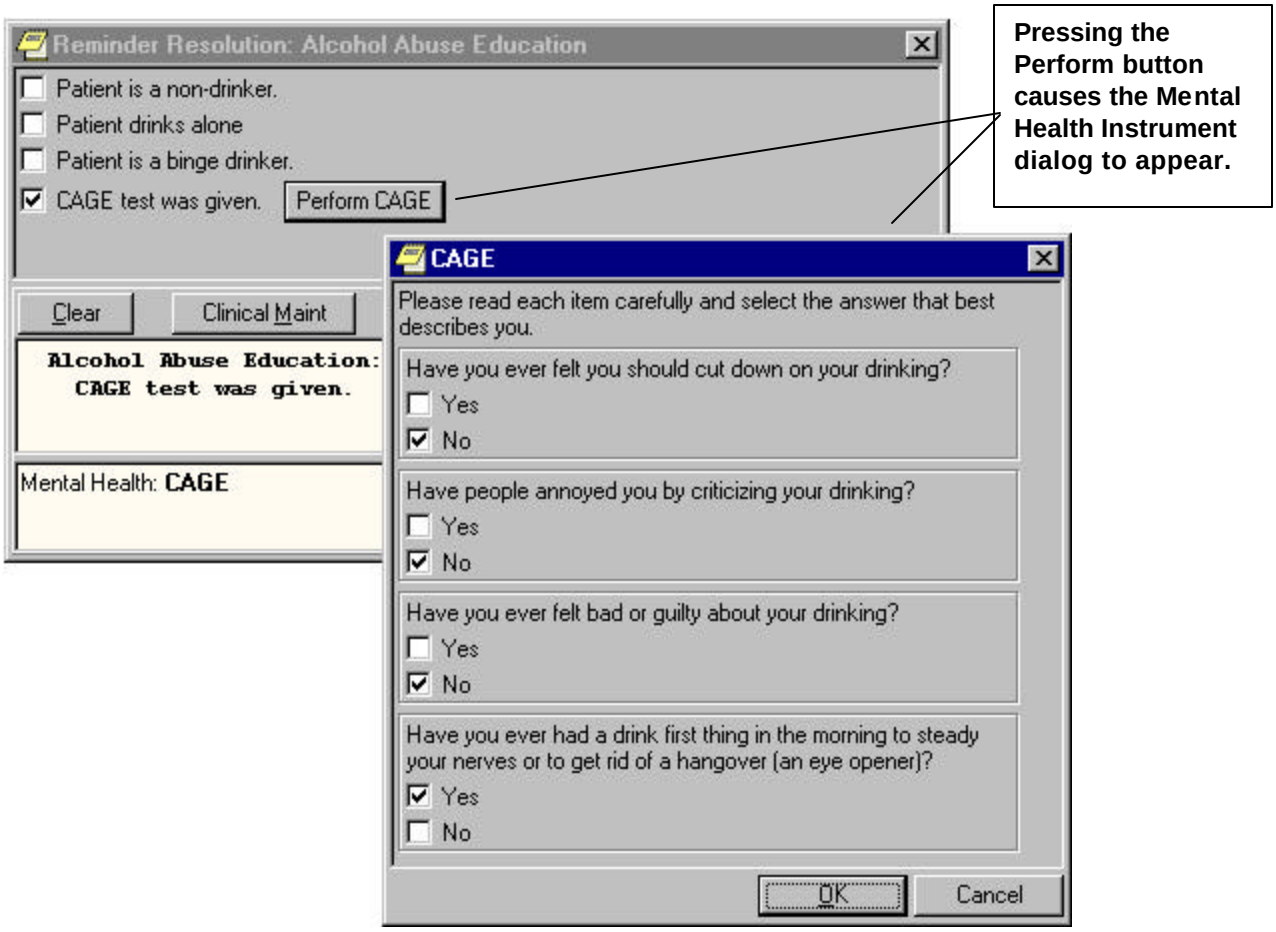
"A mood disorder screening test (ZUNG) was in the high range (score = 66)"

Action CV within Reminder Dialogs allows result groups and result elements to be modified. The position of the score in the progress note text is defined by a |SCORE| marker in the result element.

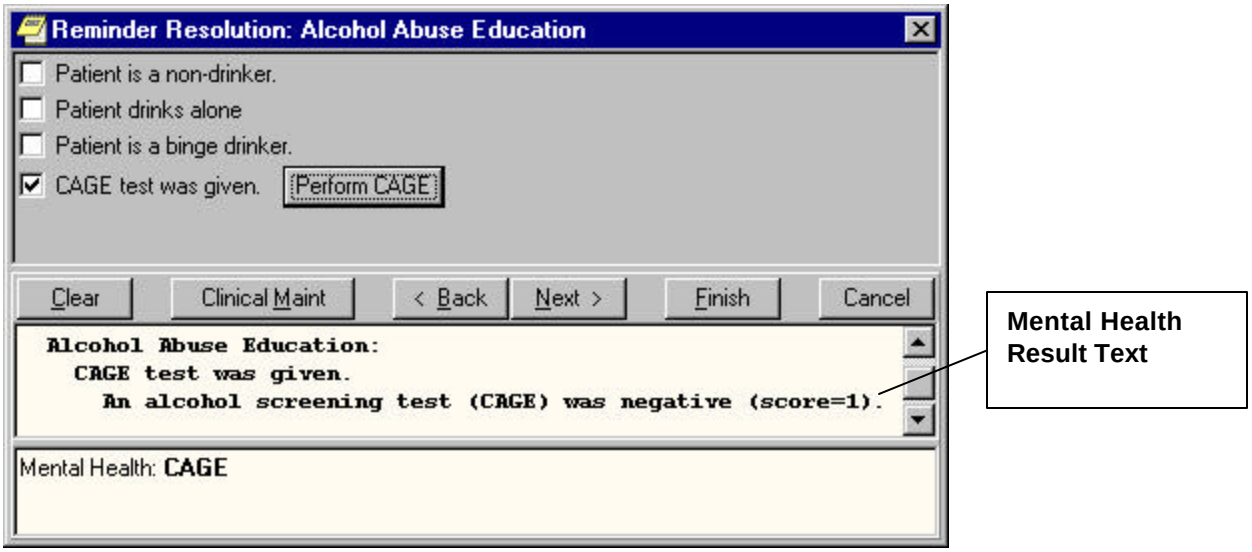
NOTE: |SCORE| works like TIU Objects, by retrieving and inserting the score in place of the marker.

***Mental Health Test Dialogs, cont'd***

Example of giving a Mental Health Instrument:




After the test questions have been answered, result text for the test is entered into the progress note



**TIU Objects**

TIU objects may be embedded in the dialog sentence text, dialog progress note text, or the result progress note text (Mental Health).

The TIU object name should be included in the word processing text in the format |***object***|. For example, the dialog element sentence or progress note text would look like this:

Patient |PATIENT NAME| had smoking cessation education at this visit.

Note that the TIU object will not include any data input via the current dialog. This is not posted until the dialog processing is finished.

## Exported Reminder Dialogs

```
DISTRIBUTED REMINDER DIALOG LIST              APR 30,2000  10:58    PAGE 1
NUMBER
    NAME                                TYPE
------------------------------------------------------------------------------

   1   PXRM AIMS RESULT GROUP                    Result Group
   2   PXRM AUDC RESULT GROUP                    Result Group
   3   PXRM AUDIT RESULT GROUP                   Result Group
   4   PXRM BDI RESULT GROUP                     Result Group
   5   PXRM CAGE RESULT GROUP                    Result Group
   6   PXRM DOM80 RESULT GROUP                   Result Group
   7   PXRM DOMG RESULT GROUP                    Result Group
   8   PXRM MISS RESULT GROUP                    Result Group
   9   PXRM ZUNG RESULT GROUP                    Result Group

   1   PXRM AIMS RESULT ELEMENT 1                Result Element
   2   PXRM AUDC RESULT ELEMENT 1                Result Element
   3   PXRM AUDC RESULT ELEMENT 2                Result Element
   4   PXRM AUDIT RESULT ELEMENT 1               Result Element
   5   PXRM AUDIT RESULT ELEMENT 2               Result Element
   6   PXRM BDI RESULT ELEMENT 1                 Result Element
   7   PXRM BDI RESULT ELEMENT 2                 Result Element
   8   PXRM BDI RESULT ELEMENT 3                 Result Element
   9   PXRM BDI RESULT ELEMENT 4                 Result Element
  10   PXRM CAGE RESULT ELEMENT 1                Result Element
  11   PXRM CAGE RESULT ELEMENT 2                Result Element
  12   PXRM DOM80 RESULT ELEMENT 1               Result Element
  13   PXRM DOM80 RESULT ELEMENT 2               Result Element
  14   PXRM DOMG RESULT ELEMENT 1                Result Element
  15   PXRM DOMG RESULT ELEMENT 2                Result Element
  16   PXRM MISS RESULT ELEMENT 1                 Result Element

   1  PXRM ADD TO PROBLEM LIST                  Additional Prompt
   2  PXRM COMMENT                              Additional Prompt
   3  PXRM CONTRAINDICATED                      Additional Prompt
   4  PXRM LEVEL OF SEVERITY                    Additional Prompt
   5  PXRM LEVEL OF UNDERSTANDING               Additional Prompt
   6  PXRM OUTSIDE LOCATION                     Additional Prompt
   7  PXRM PRIMARY DIAGNOSIS                    Additional Prompt
   8  PXRM QUANTITY                             Additional Prompt
   9  PXRM REACTION                             Additional Prompt
  10  PXRM READING                              Additional Prompt
  11  PXRM RESULT (EXAM)                        Additional Prompt
  12  PXRM RESULT (SKIN TEST)                   Additional Prompt
  13  PXRM SERIES                               Additional Prompt
  14  PXRM TESTING                              Additional Prompt
  15  PXRM VISIT DATE                           Additional Prompt

   1  PXRM REFUSED                              Forced Value
   2  PXRM REPEAT CONTRAINDICATED               Forced Value
```

## Findings Types for Dialogs

| Resolution Status | STATUS Prefix // Suffix |
|---|---|
| **Education Topic** | Patient received // education at this encounter. |
| Done at Encounter<br>Additional Fields:<br>Comment<br>Level of Understanding | |
| Done Elsewhere (Historical)<br>Additional Fields:<br>Historical Date (required):<br>Outside Location:<br>Comment: | Patient indicated the // education was provided outside the VA. |
| Patient Refused<br>Additional Fields:<br>Level of Understanding (Don't ask but force to Refused value)<br>Comment: | Patient declined the // education. |
| **Immunizations** | |
| Done at Encounter<br>Additional Fields:<br>Comment<br>Contraindicated<br>Reaction<br>Series | The patient received the // immunization at this encounter. |
| Done Elsewhere (Historical)<br>Additional Fields:<br>Historical Date (required):<br>Outside Location:<br>Comment: | The patient indicated // was received outside the VA. |
| Other<br>Additional Fields:<br>Historical Date:<br>Comment:<br>Contraindicated (Forced to YES) | The patient indicates a history of contraindication for //. |

## *Dialog Findings Types, cont'd*

**Exams**

Done at Encounter — The patient was given the // exam at this encounter.

Additional Fields:
Comment:
Result:

Done Elsewhere (Historical) — The patient indicated the // exam was done elsewhere.

Additional Fields:
Historical Date (required):
Outside Location:
Result:
Comment:

**Skin Tests**

Done at Encounter — The patient was administered the // skin test at this encounter.

Additional Fields:
Results:
Reading: (Date Read?)
Comment:

Done Elsewhere (Historical) — Patient indicated the // skin test was administered outside the VA.

Additional Fields:
Historical Date (required):
Outside Location:
Result:
Reading:
Comment:

**Health Factors** (DEFAULTS TO DONE AT ENCOUNTER ONLY; UNLESS THE REMINDER HF RESOLUTIONS ARE DEFINED)

Done at Encounter — // documented for this patient at this encounter.

Additional Fields:
Severity Level: DISABLED
Comment:

Done Elsewhere (Historical) — (Historical) // documented for this patient at this encounter.

Additional Fields:
Historical Date:
Outside Location:
Severity Level: DISABLED
Comment:

Patient Refused — //

Additional Fields:
Comment:

Other — // documented at this encounter.

Additional Fields:
Comment:

## *Dialog Findings Types, cont'd*

**CPT**

| | | |
|---|---|---|
| Done at Encounter | | Patient was given the // procedure at this encounter. |
| Additional Fields: | | |
| Quantity: | | |
| Primary Procedure: | | |
| Comment: | | |
| Done Elsewhere (Historical) | | Patient indicated the // procedure was received outside the VA. |
| Additional Fields: | | |
| Quantity: | DISABLED | |
| Historical Date: | | |
| Outside Location: | | |
| Comment: | | |

**ICD Diagnosis**

| | | |
|---|---|---|
| Done at Encounter | | Diagnosis recorded at encounter: //. |
| Additional Fields: | | |
| Quantity: | | |
| Comment: | | |
| Add to Problem List: | | |
| Done Elsewhere (Historical) | DISABLED? | History of Diagnosis // recorded at this encounter. |
| Additional Fields: | | |
| Date of Onset: (Historical Date?) | | |
| Comment: | | |
| Add to Problem List: ?? | | |

**Orderable Items**

| | |
|---|---|
| Done at Encounter | Order // placed for the patient at this encounter. |

**Vital Types**

| | |
|---|---|
| Done at Encounter | ?? |

# Chapter 5: Using Reminder Reports

Clinical Reminder reports can be used for summary and detailed level information about patients' reminders due and satisfied. Reminder Reports also provide reports that clinical coordinators can use to review data extracted based on reminder definitions.

The EPI extract finding reports are specific to the Hepatitis C Extract project. The extracted data is based on the following reminders: VA-HEP C RISK ASSESSMENT, VA-NATIONAL EPI LAB EXTRACT, and VA-NATIONAL EPI RX EXTRACT.

**Reminder Reports Menu**

| Syn. | Name | Option Name | Description |
|---|---|---|---|
| D | Reminders Due Report | PXRM REMINDERS DUE | For a selected reminder the report lists any reminders that are currently due. |
| T | Extract EPI Totals | PXRM EXTRACT EPI TOTALS | This option is used to summarize total counts for each type of finding item that was extracted for the target date range of the LREPI extract option run. |
| L | Extract EPI List by Finding and SSN | PXRM EXTRACT EPI FINDING LIST | This option allows you to print extract results stored in the Reminder Extract Summary file (810.3). Extracted data is listed by finding item and social security number. The finding items are loaded into the Reminder Exchange Summary file when one of the following options is run: LREPI ENHANCE MANUAL RUN or LREPI NIGHTLY TASK |

**Reminders Due Report**

For a selected reminder, the report lists any reminders that are *due on the evaluation date selected*. Reports can be created by the following criteria:

- Individual Patient
- Hospital Location (all patients with encounters)
- OE/RR Team (all patients in team)
- PCMM Provider (all practitioner patients)
- PCMM Team (all patients in team)

A summary report displays totals of how many patients of those selected have reminders due or applicable. The summary report may include several reminders.

A detailed report displays patients with reminders due in alphabetical order. The report displays for each patient the date the reminder is due, the date the reminder was last done and next appointment date. The detailed report also (optionally) lists all future appointments. Detailed reports for Location or Provider may also (optionally) be sorted by next appointment date.
*The DETAILED report is for one reminder only.*

Reports by Hospital Location, Provider or Team print a separate report for each Hospital Location, Provider or Team selected. Reports for ***all*** Hospital Locations are not separated by location.

The report by Hospital Location for inpatient ward locations allows reporting for either current inpatients or admissions within a selected date range.

### Examples of Reminders Due Report

#### *Summary Report by PCMM Provider*

The total number of reminders due for patients allocated to a provider within PCMM can be reported. Note that the summary report may be run for several reminders, the detailed report only for one. *A future date may be entered if a report of reminders becoming due is required.* Today is the default date.

```
Select Reminder Reports Option: D  Reminders Due Report

Select an existing REPORT TEMPLATE or return to continue: <Enter>
     Select one of the following:
          I         Individual Patient
          L         Location
          O         OE/RR Team
          P         PCMM Provider
          T         PCMM Team
PATIENT SAMPLE: L// PCMM Provider
Select PROVIDER: DEAN,TAN         TD
Select another PROVIDER:
     Select one of the following:

          P         Primary care assigned patients only
          A         All patients on list

PRIMARY CARE ONLY OR ALL: P// All patients on list

Enter EFFECTIVE DUE DATE: JAN 20, 2000//<Enter>   (JAN 20, 2000)

     Select one of the following:
          D         Detailed
          S         Summary
TYPE OF REPORT: S// Summary

Select REMINDER: MAMMOGRAM
Select REMINDER: VA-WEIGHT
Select another REMINDER: VA-BLOOD PRESSURE CHECK
Select another REMINDER:  <Enter>
Create a new report template: N// <Enter>

DEVICE: HOME//   <Enter> ALPHA

Evaluating reminders done
```

***Summary Report by PCMM Provider, cont'd***

```
                                        Jan 20, 2000 5:09:08 pm  Page 1

                Clinical Reminders Due Report - Summary Report
  Report Criteria:
          Patient Sample:       PCMM Provider
          PCMM Provider:        DEAN,TAN
          All/Primary:          All patients on list
          Effective Due Date :  1/20/2000
          Date run:             1/20/2000 5:06:54 pm
_______________________________________________________________________________

Enter RETURN to continue or '^' to exit:

                                        Jan 20, 2000 5:09:11 pm  Page 2

                Clinical Reminders Due Report - Summary Report for 1/20/2000
                                              # Patients with Reminders
                                            Applicable           Due
                                            -----------          ----
1    Mammogram                                       0             0
2    Weight                                          8             6
3    Blood Pressure Check                            8             7

Report run on 8 patients.

End of the report. Press ENTER/RETURN to continue...
```

The column Reminder Applicable excludes patients (e.g. dead or non-diabetic) for whom the selected reminders are not required. Excluded patients are included in the Report Run on total.

### *Detailed report by PCMM Provider (Next Appointment only)*

This option reports details of patients with reminders due for patients allocated to a provider within PCMM. This example report displays only the next appointment for each patient. The option to display all future appointments for the patient is explained in the example report (c) Individual Patients.

```
Select Reminder Reports Option: D  Reminders Due Report

Select an existing REPORT TEMPLATE or return to continue: <Enter>
     Select one of the following:
          I         Individual Patient
          L         Location
          O         OE/RR Team
          P         PCMM Provider
          T         PCMM Team
PATIENT SAMPLE: L// PCMM Provider

Select PROVIDER:    DEAN,TAN     TD
Select another PROVIDER:

     Select one of the following:
          P         Primary care assigned patients only
          A         All patients on list

PRIMARY CARE ONLY OR ALL: P// All patients on list
Enter EFFECTIVE DUE DATE: Jan 20, 2000// <Enter>  (JAN 20, 2000)

     Select one of the following:
          D         Detailed
          S         Summary
TYPE OF REPORT: S// Detailed

Display All Future Appointments: N//<Enter> O

Sort by Next Appointment date: N//<Enter> O

Select REMINDER:    VA-BLOOD PRESSURE CHECK

Create a new report template: N//<Enter> O

DEVICE: HOME// <Enter>  ANYWHERE    Right Margin: 80//

Evaluating reminders done
```

***Detailed Report by Provider, cont'd***

```
                                        Jan 20, 2000 5:17:29 pm  Page 1

               Clinical Reminders Due Report - Detailed Report
  Report Criteria:
          Patient Sample:       PCMM Provider
          PCMM Provider:        DEAN,TAN
          Reminder:             VA-BLOOD PRESSURE CHECK
          Appointments:         Next Appointment only
          All/Primary:          All patients on list
          Effective Due Date :  1/20/2000
          Date run:             1/20/2000 5:16:32 pm
_______________________________________________________________________________
Enter RETURN to continue or '^' to exit:

                                        Jan 20, 2000 5:17:32 pm  Page 2

               Clinical Reminders Due Report - Detailed Report for 1/20/2000

Blood Pressure Check:  7 patients have reminder due

                                       Date Due    Last Done   Next Appt
                                       --------    ---------   ---------
1    DINARO,MUCHO (3779)               8/28/1998   8/27/1998   None
2    ESSTEPON,GLORD (3234)             1/20/2000   N/A         None
3    HOLMES,SHERLOCK (5377)            1/20/2000   N/A         None
4    HOOD,ROBIN (2591P)                8/19/1999   8/18/1999   None
5    MARLEY,JACOB (5678)               9/4/1998    9/3/1998    None
6    TEST,KEVIN (5734)                 2/3/1999    2/3/1997    None
7    TRAT,JACK (2342)                  1/20/2000   N/A         None

Report run on 8 patients.
Applicable to 8 patients.

End of the report. Press ENTER/RETURN to continue...
```

### *Detailed Report by Individual Patient (All Future Appointments)*

All future appointments for each patient can be reported on the detailed report. This example is of a detailed report for Individual Patients.

```
                                        Jan 20, 2000 5:00:40 pm  Page 2

                Clinical Reminders Due Report - Detailed Report for 1/20/2000

Weight:  2 patients have reminder due

                                       Date Due    Last Done   Next Appt
                                       --------    ---------   ---------
1    ESSTEPON,GLORD (3234)             1/20/2000   N/A         None
2    TEST,KEVIN (5734)                 2/3/1999    2/3/1997    None

Report run on 8 patients.
Applicable to 8 patients.

End of the report. Press ENTER/RETURN to continue...
```

### Summary Report by Location

The report by hospital Location evaluates reminders due for patients attending the selected hospital Location within a range of dates. If a prior date range is selected, then all patients with encounters are selected. If a future date range is selected, then patients with appointments for the location are selected.

The reports for selected hospital locations list reminders due for each location separately. The report for all locations reports reminders due for all locations combined.

**Hospital Location**, **Clinic Group** or **Clinic Stop** code can be selected.

Reminders *due on the effective due date* are reported.

```
Reminders Due Report

     Select one of the following:

          I         Individual Patient
          L         Location
          O         OE/RR Team
          P         PCMM Provider
          T         PCMM Team

PATIENT SAMPLE: L// Location

Select FACILITY: SALT LAKE CITY//<Enter>       UT                          660
```

*Summary Report by Location, cont'd*

```
Select another FACILITY:

     Select one of the following:

          HA        All Outpatient Locations (excluding wards)
          HAI       All Inpatient Locations (wards only)
          HS        Selected Hospital Locations
          CA        All Clinic Stops(with encounters)
          CS        Selected Clinic Stops
          GS        Selected Clinic Groups

Determine encounter counts for: HS// HS  Selected Hospital Locations

LOCATION: CARDIOLOGY          TEDD,DR
Select another LOCATION:

     Select one of the following:
          P         Previous Encounters
          F         Future Appointments

PREVIOUS ENCOUNTERS OR FUTURE APPOINTMENTS: P// Previous Encounters

Enter ENCOUNTER BEGINNING DATE:  080199  (AUG 01, 1999)
Enter ENCOUNTER ENDING DATE: 090196  (SEP 01, 1999)

Enter EFFECTIVE DUE DATE: Dec 9, 1999//<Enter>  (DEC 9, 1999)
Select SERVICE CATEGORIES: AI//<Enter>
     Select one of the following:
          D         Detailed
          S         Summary
TYPE OF REPORT: S// Summary

Select REMINDER: VA-D
     1   VA-DIABETIC EYE EXAM
     2   VA-DIABETIC FOOT CARE ED.
     3   VA-DIABETIC FOOT EXAM
     4   VA-DIGITAL RECTAL (PROSTATE) EXAM
CHOOSE 1-4: 1  VA-DIABETIC EYE EXAM
Select another REMINDER: VA-BLOOD PRESSURE CHECK
Select another REMINDER: VA-WEIGHT
Select another REMINDER: <Enter>
Create a new report template: N// <Enter>

DEVICE: HOME// <Enter>  ANYWHERE    RIGHT MARGIN: 80// <Enter>

Sorting Encounters /

Evaluating Reminders done
```

***Summary Report by Location, cont'd***

```
                                          Dec 09, 1999 10:16:49 am  Page 1

                  Clinical Reminders Due Report - Summary Report
  Report Criteria:
          Patient Sample:       Location
          Location:             Selected Hospital Locations (Prior Encounters)
                                CARDIOLOGY
          Date Range:           8/1/99 to 9/1/99
          Effective Due Date :  12/9/1999
          Date run:             12/9/99 10:15:34 am
          Service categories:   AI
             A - AMBULATORY
             I - IN HOSPITAL
```

```
Enter RETURN to continue or '^' to exit: <Enter>

                                          Dec 09, 1999 10:16:57 am  Page 2

                  Clinical Reminders Due Report - Summary Report
Facility: SALT LAKE CITY  660
Reminders Due for CARDIOLOGY for 8/1/99 to 9/1/99
                                                  # Patients with Reminders
                                                   Applicable         Due
                                                   ----------        -----
1    Diabetic Eye Exam                                  19             19
2    Blood Pressure Check                               32             32
3    Weight                                             32             32

Report run on 32 patients.
```

### Reminder Report Templates

The selection criteria used for a Reminders Due report may be saved into a report template file (with a user-specified identifier) as the report is being run. When running the Reminders Due report, you may select from existing templates and run a new report using the parameters from the selected template. The prompts for date range and sort order are displayed, but all other parameters are taken from the previous report. If a print template is selected, you are prompted (before running the report) to edit the template and/or to copy to a new template.

### Creating a new template

This is an example of creating a new template for the Reminders Due report:

```
Select one of the following:
          I         Individual Patient
          L         Location
          O         OE/RR Team
          P         PCMM Provider
          T         PCMM Team
PATIENT SAMPLE: L// PCMM Provider

Select PROVIDER:    DEAN,TAN       TD
Select another PROVIDER:

     Select one of the following:
          P         Primary care assigned patients only
          A         All patients on list
PRIMARY CARE ONLY OR ALL: P// All patients on list

Enter EFFECTIVE DUE DATE: Feb 18, 1999// T  (FEB 18, 1999)

     Select one of the following:
          D         Detailed
          S         Summary
TYPE OF REPORT: S//<Enter> ummary

Select REMINDER:    VA-SEAT BELT EDUCATION
Select another REMINDER:

Create a new report template: N// YES
STORE REPORT LOGIC IN TEMPLATE NAME: PROVDEAN
  Are you adding 'PROVDEAN' as
    a new REMINDER REPORT TEMPLATE (the 5TH)? No// Y  (Yes)
   REMINDER REPORT TEMPLATE TITLE: Due Patients for DEAN

DEVICE: HOME//  <Enter> ALPHA

Evaluating reminders done
```

*Creating a new template, cont'd*

```
                                        Feb 18, 1999 11:44:01 am  Page 1

                    PCE Reminders Due Report - Summary Report
  Report Criteria:
          Patient Sample:       PCMM Provider
          PCMM Provider:        DEAN,TAN
          All/Primary:          All patients on list
          Effective Due Date:   2/18/1999
          Date run:             2/18/1999 11:43:27 am
          Report Template:      PROVDEAN
_______________________________________________________________________________

Enter RETURN to continue or '^' to exit: <Enter>
```

```
                                        Feb 18, 1999 11:44:01 am  Page 2

                    PCE Reminders Due Report - Summary Report
Reminders Due for DEAN,TAN for 2/18/1999
                                                  # Patients with Reminders
                                                    Applicable        Due
                                                    ----------        ----
1    Seat Belt Education                                 8              4

Report run on 8 patients.

End of the report. Press ENTER/RETURN to continue... <Enter>
```

## Using an Existing Template

This is an example of using an existing template for the Reminders Due report:

```
Reminders Due Report

Select an existing REPORT TEMPLATE or return to continue: pROV/DEAN Due Patients
for DEAN

          Report Title:         Due Patients for DEAN
          Report Type:          Detailed Report
          Patient Sample:       PCMM Provider
          PCMM Provider:        DEAB,TAN
          Reminder:             VA-SEAT BELT EDUCATION
          All/Primary:          All patients on list
          Template Name:        PROVDEAN
          Date last run:     MAR 22, 1999@11:44:01

WANT TO EDIT 'PROVDEAN' TEMPLATE: N//<Enter> O
Enter DUE EFFECTIVE DATE: Feb 1, 2001//  <Enter> (FEB 1, 2001)
DEVICE: HOME// <Enter>  ALPHA

Evaluating reminders done
```

***Using an Existing Template, cont'd***

```
                                        Feb 1, 2001 11:51:28 am  Page 1

                    Clinical Reminders Due Report - Summary Report
  Report Criteria:
          Patient Sample:       PCMM Provider
          PCMM Provider:        DEAN,TAN
          All/Primary:          All patients on list
          Effective Due Date:   2/1/2001
          Date run:             2/1/2001 11:50:52 am
          Report Template:      PROVDEAN
_______________________________________________________________________________
Enter RETURN to continue or '^' to exit: <Enter>
                                        Feb 1, 2001 11:51:30 am  Page 2
                    Clinical Reminders Due Report - Summary Report
Reminders Due for DEAN,TAN for 2/1/2001
                                                  # Patients with Reminders
                                                    Applicable        Due
                                                    ----------        ----
1    Seat Belt Education                                 8              4

Report run on 8 patients.
End of the report. Press ENTER/RETURN to continue...
```

### Editing/Copying an Existing Template

This is an example of editing an existing template. Here an additional reminder is added to the report and the report is made into a summary report:

```
WANT TO EDIT 'PROVDEAN' TEMPLATE: N// YES
TEMPLATE NAME: PROVDEAN// <Enter>
TITLE: Due Patients for DEAN//<Enter>
PATIENT SAMPLE: Provider// <Enter>
REPORT TYPE: Detailed Report//Summary Report
Select PROVIDER: DEAN,TAN// <Enter>
PRIMARY CARE ONLY OR ALL: All patients// <Enter>
Select REMINDER: VA-SEAT BELT EDUCATION// VA-WEIGHT
  DISPLAY ORDER: 2
Select REMINDER:
          Report Title:         Due Patients for DEAN
          Report Type:          Summary Report
          Patient Sample:       PCMM Provider
          PCMM Provider:        DEAN,TAN
          Reminder:             VA-SEAT BELT EDUCATION
                                VA-WEIGHT
          All/Primary:          All patients on list
          Template Name:        PROVDEAN
          Date last run:        MAR 22, 1999@11:44:01

STORE REPORT LOGIC IN TEMPLATE NAME:   PROVDEAN// DEANSUM
A new template DEANSUM has been created
```

Note that when new reminders are added, it is possible to select the display order. Changes made are re-displayed before filing. The changes may be saved to the existing template (by pressing <Enter>) or copied to a new template name (with a new template title as above).

### Extract EPI Totals

This option is used to summarize total counts for each type of finding item that was extracted for the target date range of the LREPI extract option run. The Lab EPI extract name follows the convention: LREPI YY/MM MMDDYY, where the YY/MM is the year and month from the date range specified by the LREPI extract option that created the extract. MMDDYY is the month, day and year that the extract was run. The prefix of LREPI identifies the extract as the result of LREPI extract options (manual or automatic run for the LREPI Lab Search/Extract Protocol).

At the START WITH NAME prompt, enter "LREPI YY/MM", with the year and month's data to be reported. At the GO TO NAME prompt, enter LREPI YY/MMz. If there have been multiple runs for the target month, you can narrow the report criteria by adding the MMDDYY (month, day, year the report was run) to the START WITH NAME and GO TO NAME.

```
Select Reminder Reports Option:

   D      Reminders Due Report
   T      Extract EPI Totals
   L      Extract EPI List by Finding and SSN

Select Reminder Reports Option: T  Extract EPI Totals
START WITH NAME: FIRST// LREPI 00/05
GO TO NAME: LAST// LREPI 00/05z
DEVICE:   ANYWHERE    Right Margin: 80//
```

```
REMINDER EPI EXTRACT TOTALS                    AUG  1,2000  00:31    PAGE 1
-------------------------------------------------------------------------------

LREPI 00/05 061600             Extract Date Range: MAY  1,2000-MAY  31,2000
                                      Extract Date: JUN 16,2000  01:34

    Total Patients Evaluated:         78
    Total Patients with Findings:     51

    Totals by Finding Item               Finding  Unique Patient
                                           Count       Count
         INTERFERON BETA-1A (AVONEX) 30        3           2
         RIBAVIRIN/INTERFERON 1200/3 PE        5           3
         RIBAVIRIN/INTERFERON 600/3 PEN        1           1
         RIBAVIRIN/INTERFERON 1000/3 PE        2           2
         RIBAVIRIN 200MG CAP (VA 44-4-0        1           1
         INTERFERON ALPHA-2B INJ (VA 44        1           1
         HEP C ANTIBODY                       30          30
         TOT. BILIRUBIN                       21          21
         AST                                  33          33
         ALT                                  33          33
         VA-HEPATITIS C INFECTION             18          18
```

### Extract EPI List by Finding and SSN

This option allows you to print extract results stored in the Reminder Extract Summary file (810.3). Extracted data is listed by finding item and social security number. The finding items are loaded into the Reminder Extract Summary file when one of the following options is run:

LREPI ENHANCE MANUAL RUN  Lab Search/Extract Manual Run (Enhanced)
LREPI NIGHTLY TASK  Lab Search/Extract Nightly Task

```
   D      Reminders Due Report
   T      Extract EPI Totals
   L      Extract EPI List by Finding and SSN

Select Reminder Reports Option: L  Extract EPI List by Finding and SSN
START WITH NAME: FIRST// LREPI 00/05
GO TO NAME: LAST// LREPI 00/05z
DEVICE:   ANYWHERE    Right Margin: 80//
```

```
LREPI 00/05 062300           Date Range: MAY  1,2000 TO MAY 31,2000
                           Extract Date: JUL 23,2000  16:12

Total Patients Evaluated:   374
Patients with Findings  :   339

Finding      SSN        Patient            Enctr Type  Date
-------------------------------------------------------------

ALT      145-59-4281    HLUKXRU,LYSEXYN    Outpatient 5/12/00
         155-55-2063    HLNYHT,CLZHT JL    Outpatient 5/24/00
         182-39-1314    HLCIHUL,AHXYLUI    Outpatient 5/15/00
         184-68-9784    TEXZWTXY,AHTADH    Outpatient 5/13/00
         202-17-5419    HLAAHU,JELUAHT     Outpatient 5/22/00
         203-07-7909    LLJHN,HIPLUI       Outpatient 5/11/99
         203-27-2835    KLAHAA,TLZRHA C    Outpatient 5/23/00
         203-59-7487    YXRYF,FHYH L       Outpatient 5/30/00
         203-69-0200    WHLQHU,JHJDA       Outpatient 4/12/00
         204-37-2492    WHAJE,PLASHU       Outpatient 5/21/00
         204-68-3181    PUXWEHSS,TXA U     Outpatient 5/8/00
         204-68-4002    DDYBHALBHU,TRH     Outpatient 5/4/00
         204-86-6120    DXYLERH,SEXZLT     Outpatient 5/19/00
         204-87-2592    HHLSHU,ALYDH CX    Outpatient 5/31/00
         204-97-5515    MJFULP,PLASHU U    Outpatient 3/25/98
         205-28-3620    MLJB,LYSEXYN U     Outpatient 5/1/00
         205-28-4747    BRYFHU,UXKHUS C    Outpatient 1/28/00
         205-37-3844    LLBH,YLSELYDHA     Outpatient 5/4/00
         205-49-8892    DDQX,SEXZLT C      Outpatient 12/29/99
         205-57-8086    ITXZH,PDAADLZ G    Outpatient 5/26/00
         205-89-9389    DHQLRFEY,JALUHY    Outpatient 5/20/00
         205-89-9841    WLFYHU,UXKHUS      Outpatient 5/23/00

etc.
```

# Section III – Supplementary Material

**Glossary**
**FAQs, Hints, and Troubleshooting**
**Appendix A: Checklist for defining Reminder Definition and Dialog**
**Appendix B: Clinical Reminder Menus**
**Appendix C: Defining Reminders Feedback Loop**
**Index**

## Glossary

**Applicable**

In order for a reminder to be applicable, the Patient Cohort Logic must evaluate to true for the patient. In other words, when the Patient Cohort Logic is true, the patient is in the cohort and the reminder is applicable.

**Autogenerate**

Autogeneration is a tool for creating reminder dialogs from the reminder definition. It automatically adds dialog elements (sentences) to a reminder dialog for each finding on the reminder, with sentence text generated from the finding name. Appropriate parameters in the Dialog Parameters files that contain the prefix (e.g., *Patient received*) and suffix text (e.g., *at this encounter*) must be completed before autogeneration can work.
Example of autogenerated element: *Patient received* Tobacco Use Education *at this encounter*

**Computed Findings**

A custom MUMPS routine used to find some specific patient characteristic. Computed findings are used when none of the standard findings will work. Sites can create their own computed findings

**Dialog**

A dialog is a list of items/actions/sentences that can be used to collect patient data and create Progress Note text. By clicking on checkboxes, you can indicate what actions were taken during an encounter. These dialog items are based on guidelines at your site and how your Reminder Managers define the reminders and dialogs.

A dialog is an entry in the Reminder Dialog file. The entry may be a dialog element, a dialog group, an additional prompt, a result element, or a result group. These are defined below:

*Dialog element*

A dialog element is defined primarily to represent sentences to display in the CPRS window with a check box. When the user checks the sentence off, the FINDING ITEM in the dialog element and the ADDITIONAL FINDINGS will be added to the list of PCE updates, orders, and mental health tests. The updates won't occur on the CPRS GUI until the user clicks on the FINISH button. Dialog elements may have components added to them.

Autogenerated components are based on the additional prompts defined in the Finding Type Parameters. Once a dialog element is autogenerated, the sites can modify it. Dialog elements may also be instructional text or a header. The FINDING ITEM and components are not defined in dialog elements.

| | |
|---|---|
| *Dialog group* | Dialog groups are similar to menu options. They group dialog elements and dialog groups within its component multiple. The dialog group can be defined with a finding item and checkbox. The components in the group can be hidden from the CPRS GUI window until the dialog group is checked off. |
| *Prompt* | A prompt is defined for PCE prompts or as locally created comment checkboxes. The prompts do not have any components within them. PXRM-prefixed prompts are distributed in this file with the Clinical Reminder package. |
| *Result element* | A result element contains special logic that uses information entered during the resolution process to create a sentence to add to the progress note. The special logic contains a CONDITION that, when true, will use the ALTERNATE PROGRESS NOTE TEXT field to update the progress note. A separate result element is used for each separate sentence needed. The result element is only used with mental health test finding items. Default result elements are distributed for common mental health tests, prefixed with PXRM and the mental health test name. Sites may copy them and modify their local versions as needed. |
| *Result group* | A result group contains all of the result elements that need to be checked to create sentences for one mental health test finding. The dialog element for the test will have its RESULT GROUP/ ELEMENT field defined with the result group. Default result groups for mental health tests are distributed with the Clinical Reminders package. Sites may copy them and modify their local versions as needed. |
| **Drawer** | Drawers are what we call the buttons on the Notes screen for Templates, Reminders, and Encounters. After you begin a new note, you will see the Reminders button or "drawer." Click to open the drawer and see a tree view of reminders that are due, applicable, and other reminders. |

**Due, Applicable, Other (folders)**

| | |
|---|---|
| *Due* | This folder contains reminders that are due. |
| *Applicable* | This folder contains reminders that are applicable but not due. |
| *Other* | This folder contains Reminder Categories if they have been created at your site. Categories group together related reminders, to make processing more efficient. Each Category will have its own folder within the Other folder. |

**Findings** Data from **V*ISTA*** packages (Lab, Mental Health, PCE, Pharmacy, Radiology, Vitals, etc., and Computed Findings) are called Findings. Findings are used to define the Patient Cohort Logic and Resolution Logic and to provide relevant clinical information.

**Finding type** This refers to the source of the finding, such as the files for Drugs, Education Topics, Exams, Health Factors, Immunizations, Laboratory Tests, Mental Health Instruments, Orderable Items, Radiology Procedures, Reminder Computed Findings, Reminder Taxonomies, Reminder Terms, Skin Tests, VA Drug Class, VA Generic, and Vital Measurements.

**Forced Value** Values that are automatically stuffed into dialogs. Two forced values are included in this release, PXRM REFUSED and PXRM REPEAT CONTRAINDICATED. The effect of a forced value is to automatically fill the PCE education "refused" field. These don't display on the dialog, but are built into the dialog when the autogenerate runs.

**Health Factors** Patient information that can't be coded, such as Alcohol Use, Binge Drinking, Current Non-Smoker, Current Smoker, Currently Pregnant, Family Hx of Alcohol Abuse, Lifetime Non-Smoker, No Risk Factors For Hep C, etc.

.

**Other** One of the reminder folders in the Reminders Drawer on the Notes or Consults tabs in CPRS. It contains reminders that have not been evaluated for the selected patient, but have been defined as part of a Reminder Category.

**Patient Cohort** A group of patients that meet the defined criteria (Patient Cohort Logic) for a reminder. In other words, if the reminder is applicable, the patient is in the cohort.

**Patient Cohort Logic** This is the logic that specifies how findings are used to select the applicable patient population; i.e., the patient cohort. It is based on Mumps Boolean operators and their negations. The operators are ! (OR), & (AND), '! (NOT OR), and '& (NOT AND.

**Reminder Categories** A category defines a group of reminders and may include other sub-categories. Categories appear in the Other folder in the Notes and Consults tabs of the CPRS GUI.

*Glossary, cont'd*

| | |
|---|---|
| **Resolution Logic** | Resolution logic specifies how findings are used in resolving a reminder. It is based on Mumps Boolean operators and their negations. The operators are ! (OR), & (AND), '! (NOT OR), and '& (NOT AND). |
| **Resolve, Reminders Resolution** | Recording or taking action that satisfies a reminder. For example, if a reminder exists for influenza immunization, giving a flu vaccine satisfies or resolves that reminder. Likewise, ordering lab tests or drugs or giving patient education can resolve a reminder. |
| **Taxonomies** | Coded data such as diagnoses or procedures with ICD or CPT codes. Reminder taxonomies provide a convenient way to group coded values and give them a name. For example, the VA-DIABETES taxonomy contains a list of diabetes diagnoses. |
| **Term** | Reminder terms provide a way to define a general term, for example diabetes diagnosis, which can be linked to specific findings. |
| **Tree View** | A hierarchical view of reminder categories, with reminders listed underneath. This view is visible when you press the Reminders button or when the reminders drawer is open. It shows the reminders divided into the Due, Applicable, and Other categories. |

## Icon Definitions

CPRS uses two parameter lists of reminders, one for evaluation (the ORQQPX SEARCH ITEMS parameter) and one for the "Other" section of the tree (the PXRM CPRS LOOKUP CATEGORIES parameter). The CPRS GUI combines these two lists into one tree view.

| Icon | Description |
|---|---|
| | Red, ringing alarm clock means that a reminder is due. When present in the reminders button, reminders from the ORQQPX SEARCH ITEMS parameter have been evaluated, and there is at least one reminder due. |
| | Blue, non-ringing alarm clock means that a reminder is not due, but applicable. When present in the reminders button, reminders from the ORQQPX SEARCH ITEMS parameter have been evaluated, none of them evaluated to due, but at least one of them has been evaluated as applicable. |
| | Wall clock means that a reminder is not applicable. When present in the reminders button, reminders from the ORQQPX SEARCH ITEMS parameter have been evaluated, none of them evaluated to due or applicable, but reminders have been evaluated as not applicable that were found in the PXRM CPRS LOOKUP CATEGORIES parameter. |
| | Question mark means that a reminder's status of due, applicable or not applicable has yet to be evaluated. When present on the reminders button, no available reminders have been evaluated. This typically happens when reminders in the ORQQPX SEARCH ITEMS parameter are not defined or have not yet been evaluated. |
| | Present only on the reminders button, a grayed-out alarm clock means that reminders from the ORQQPX SEARCH ITEMS parameter have been evaluated, none of them evaluated to due or applicable, and no reminders were found in the PXRM CPRS LOOKUP CATEGORIES parameter. |
| | Present only in the reminders tree, a dialog icon is displayed in the lower right hand corner of a clock icon when there is a reminder dialog associated with that reminder. |
| | Present only in the reminders tree, a dialog icon, with a check mark over the dialog, is displayed in the lower right hand corner of a clock icon after the reminder dialog associated with that reminder has been processed. When these reminders are re-evaluated, the check mark is removed. |

## FAQs, Tips, and Troubleshooting

**Q:** What do we need to do to get started with the new Clinical Reminders application?

**A:** Some of the recommended steps:

1. Identify leaders; form a steering committee; get administrative support
2. Implement gradually
3. Use the report options to identify needs
4. Customize the list of reminders that are displayed for users in the CPRS GUI, making sure they see only reminders that are relevant for them.

**Q:** How can we avoid overwhelming clinicians with too many reminders?

**A:** As stated above, implement gradually. The following steps can help:

1. Prioritize reminders
2. Share responsibility
3. Use the report options to help balance the workload within a team

**Q:** What do clinicians need to learn to use the new Clinical Reminders functionality?

**A:** The most important things to learn will be related to a change in workflow. It will be important to coordinate orders that are placed through reminder dialogs with nurses and clerks. You can work with your CACs and teams to share the responsibility for reminders so that no individual is overwhelmed with reminders. Learning to use reports correctly, to produce meaningful data, will be essential.

**Q:** What is the difference between the exported Clinical Reminders that have an asterisk (*). e.g. VA-*SEAT BELT AND ACCIDENT SCREEN and those that only have VA-; e.g., VA-SEAT BELT EDUCATION

**A:** The asterisk (*) identifies the reminders related to the National Center for Health Promotion. They were created based on the 13 issues identified by the National Center for Health Promotion in Handbook 1101.8.

(Most of the other reminders beginning with VA- were created with input by the "Ambulatory Care Expert Panel" which no longer exists.)

However, that handbook has been replaced by Handbook 1120.2 ("HEALTH PROMOTION AND DISEASE PREVENTION PROGRAM"). You can retrieve a copy from: http://vaww.va.gov/publ/direc/health/handbook/1120-2hk.doc

**Q:** Are the reminders our site has already defined compatible with the new Clinical Reminders v.1.5 package?

**A:** Yes, a conversion utility is run when the package is installed that converts your reminders to the new file structure. Be sure to follow the instructions in the Installation Guide to set a few important parameters.

**Q:** Can we still use the Exchange Utility to share reminders?

**A:** With the initial release of Clinical Reminders 1.5, the Exchange Utility hasn't been updated and is only available for previously packed reminder definitions. If you want to import these, use the Exchange Utility through the PXRM MANAGERS option. Then when you install the packed reminder in the new package, it will automatically be converted to the new reminders format.

**Q:** Can we use the reports functionality "out of the box" as soon as we install V. 1.5 (or patch 63) or do we have to define reminders first?

**A:** Reports can be run on the National reminders that are distributed "out of the box," but National reminders will not include local findings so the report counts will not be correct. Once local reminders are defined and tested, you will primarily run the reports based on site-specific reminders.

**Q:** If I build a reminder dialog by autogeneration, can I also build additional dialogs to go along with that?

**A:** Once a reminder dialog is autogenerated, you can change or add dialog elements. The dialog elements don't need to be related to the reminder or exist as findings on the reminder.

So if you want an additional Health Factor on a dialog, you create a dialog element for the Health Factor (assuming one doesn't exist already) and then add it to the dialog

**Q:** If orders are included in dialogs and I check these (in the Notes tab in CPRS), are the orders actually placed, or is this just recording the intention to order something?

**A:** The order is actually placed, just as if you had ordered through the Orders tab. If the order is set up as a quick order, it will go through immediately (when you click the Finish button); if it's not a quick order, further questions will be asked to complete the order. The order will still need to be signed.

***FAQs, cont'd***

**Q:** Has anyone seen this? We have used ORQQX, the Clinical Reminders for Search parameter, to turn on the Depression and PTSD reminders at the User level for a particular user--actually a CAC. When she opens the Cover Sheet, she does not see the box with the big question mark and ringing alarm clock. When she selects a patient, she still does not get the clock box, but the GUI tells her that the reminder is being retrieved in the background. Then the reminder shows as DUE in the reminders box. She goes to the Notes Tab, starts a new note, but the Reminder Drawer is not there. The Template drawer and Encounter drawer are there, but no Reminder Drawer. All of these work fine for me. What have we missed? Is there another parameter that needs to be set? Many thanks.

**A:** Make sure the parameter, PXRM GUI REMINDERS ACTIVE is set to yes, by system.

**Q:** Has anyone developed a reminder that will search for a blank allergy field?

**A:** Hines uses one that requires this computed finding:

```
    GMRA(DFN,TEST,DATE,VALUE,TEXT)  ;;RETURN DATA ABOUT ENTRIES IN ART
PACKAGE
        N AJEY
        S AJEY=$$NKA^GMRANKA(DFN)
        S TEST=0,DATE=""
        I AJEY="" S TEST=1, DATE=DT
        Q
```

This finding will return TRUE if there is *any* data in the PATIENT ALLERGIES file. The way we use it is a reminder that is due for all patients, and satisfied if this returns true. That way, anyone DUE for the reminder has no data in the file at all.

**A2:** We took this one step further at Northern California. We used the computed finding from Cyndi McCracken at West Palm to create a reminder if there was no allergy info entered and we made a dialog for it that takes the user to the allergy/ADR entry dialog so that they can enter allergy information.

**Q:** Do users have to have a key to do a CAGE? The Primary Care physician who has been working with me tried to use my CAGE Reminder and got a warning message that he was not authorized to enter CAGE results.

**A:** You have to make mental health dialogs active for the user or Division or service under CPRS Reminder Configuration on the manager's menu:

```
Select CPRS Reminder Configuration Option: mh  Mental Health Dialogs
Active

Mental Health Active may be set for the following:
     1   User          USR    [choose from NEW PERSON]
     2   Division      DIV    [choose from INSTITUTION]
     3   System        SYS    [TAMPA.VA.GOV]
```

**Q:** Help! I have two questions about Clinical Reminders.

1. We are trying to set up the Diabetic Foot Screen to require the clinician to answer with one element in each of 3 groups. I set up a group which includes 3 other groups. For example Foot Sensations group has 2 elements:

Sensations intact.
Sensations deficit.

Once the box for Foot Sensations has been opened, the reminder cannot be finished without one of the elements checked. The other two have been set up the same way.

```
5            You must select one item under each of the following:
               Foot Sensations, Skin Lesions or Pedal Pulses
             [no caption for this group]
5.1          Foot Sensations
              Sensations intact.
              Sensations deficit.
5.2          Skin Lesions
              Skin lesions present.
              No skin lesions.
5.3          Pedal Pulses
              Pedal pulse intact.
              Pedal pulse deficit.
```

What I want to do with the dialog is to have it so that the clinician cannot finish the reminder if he/she does not select one element in each of the 3. The only options I can find are :

```
1        ONE SELECTION ONLY
2        ONE OR MORE SELECTIONS
0        NO SELECTION REQUIRED
```

Is there another way to do this?

2. When a number of reminders are finished at one clinical visit, by using the "NEXT" button, we have had some of them still show as active even though the note shows they were finished and even though the reminder shows a resolution date under Clinical Maintenance. We haven't been able to get a handle on this because it is inconsistent. Some patients will have their reminders resolved. Have any of you had this problem and if so, what did you do about?

**A:** Here are the steps you must take to force a response to each question/area!

*Two key things to set are SHOW group and SUPPRESS checkbox for each of the subgroups (i.e. the exam question groups) see example below

```
DISABLE:
RESOLUTION TYPE:
FINDING ITEM:
GROUP CAPTION:
PUT A BOX AROUND THE GROUP:
SHARE COMMON PROMPTS:
MULTIPLE SELECTION: ONE SELECTION ONLY//
HIDE/SHOW GROUP: SHOW//    <-----(this must be set to SHOW)
GROUP HEADER DIALOG TEXT:
PEDAL PULSES: (includes palpation of dorsalis and posterior tibial pulses
and signs/symptoms of vascular compromise like pain, pallor parathesia or
paralysis)

  Edit? NO//
GROUP HEADER ALTERNATE P/N TEXT:
  No existing text
  Edit? NO//
EXCLUDE FROM PROGRESS NOTE:
SUPPRESS CHECKBOX: SUPPRESS//    <----(this must be set to SUPPRESS)
NUMBER OF INDENTS: 2//
INDENT PROGRESS NOTE TEXT:
Select ADDITIONAL FINDINGS:
Select SEQUENCE: 2// ?
    Answer with COMPONENTS SEQUENCE, or ITEM
   Choose from:
   1      DAY PEDAL NORMAL
   2      DAY PEDAL ABNORMAL
```

**A2:** Try creating three different "groups" for that reminder. Each one can be set to require clicking one, or more boxes (per group).

**Q:** Has anyone created a Progress Note title to pull into a Health Summary record of outside medications and procedures?

If so, what title do you suggest and how to make it work most effectively to include the data required by IM7.4?

**A:** Tampa is approaching this through Reminder Dialogs. I have been actively using these dialogs for about a month in my Primary care clinic. It is much easier to use the dialogs within my usual

Ambulatory Care note title than it is to have to start a second note. Another advantage of using reminder dialogs: you will be capturing info that can be used to satisfy other reminders

A) Health factors for "S/P Total colectomy" and "S/P hysterectomy" can be used in the appropriate cancer screening reminders. (these are set up with resolution status "Other" since it is a condition: once you are S/P total colectomy you are always S/P Total colectomy. The date of the procedure indicated by typing date into comments rather than using a resolution status of "Done Elsewhere" and using drop down date.

B) Although HF for individual meds are not included in Outside Med dialog, the following HF were included: Outside ACE Inhibitor, Outside ASA and Outside Beta Blocker - for the IHD reminders.

*NOTE: See Tampa's reminder dialog on the Reminders web page under Examples.*

**A2:** We created a Progress Note Title "Outside Medications" under the DOCUMENT CLASS Clinical Warning. Clinician can then view on CWAD DISPLAY. Then created h/s called PHARMACY MEDS AND OUTSIDE MEDS and added it as a health summary on the reports tab. HS included the RXOP component and SPN COMPONENT with 3 occurrence limits. The dilemma is getting the clinician to enter a separate note, however, due to the benefits of this information for meds and herbs outside VA, clinicians are taking the time to add. Some are appending the original title instead of adding a new one. We probably need to look at that and ensure that this is okay, but it is better than what we had. Our 2nd brainstorm was to add it as a problem to the problem list OUTSIDE MEDICATIONS (DEFAULTS TO 799.9 CODE) AND THE CLINICIAN CAN ADD comment each time med is changed or added.

**Q:** This education reminder will not load on the cover sheet, my other ones have. The cover sheet shows the ? mark, not evaluated. From previous NOIS reports, the cohort logic is a problem, but I don't know how to troubleshoot that.

```
PSA ED-ASH                          No.  637009
Print Name:                    Prostate Screening Education
Related VA-* Reminder:
Reminder Dialog:               PSA ED-ASH
```

---

```
Baseline Frequency:
Do In Advance Time Frame:  Do if DUE within 3 months
                  Sex Specific:  MALE
                 Ignore on N/A:  SA
       Frequency for Age Range:  1 year for ages 50 to 72
                    Match Text:
                 No Match Text:
Findings:
                  Finding Item:  LIFE EXPECTANCY < 6 MONTHS (FI(2)=HF(637121))
                  Finding Type:  HEALTH FACTOR
                    Found Text:  Documented life expectancy less than 6
 months, excludes patient from performance measures.
                Rank Frequency:  1
       Use in Resolution Logic:  OR
              Effective Period:  1Y
                  Finding Item:  VA-RACE (FI(3)=CF(6))
```

```
                Finding Type:  REMINDER COMPUTED FINDING
          Match Frequency/Age:  1 year for ages 40 to 72
   Use in Patient Cohort Logic:  AND
                   Condition:  I V["BLACK"
                Finding Item:  PROSTATE CA EDUCATION (FI(4)=ED(637012))
                Finding Type:  EDUCATION TOPIC
                  Found Text:  Documentation, pros and cons (risks and
benefits) of screening for prostate cancer were discussed with the
patient.  The patient was given the opportunity to ask questions and
verbalized understanding of  this information.
       Use in Resolution Logic:  AND
                Finding Item:  PROSTATE SPECIFIC AG(PSA)
(FI(5)=LT(1413))
                Finding Type:  LABORATORY TEST
    Not Found Text:  Date of last PSA not on file.  Please order test or
document through an historical encounter.
       Use in Resolution Logic:  OR
                Finding Item:  PROSTATE CA (FI(6)=TX(637035))
                Finding Type:  REMINDER TAXONOMY
Use in Patient Cohort Logic:  AND NOT
                Finding Item:  PREVENTION CARE INDEX (FI(7)=TX(637040))
                Finding Type:  REMINDER TAXONOMY
   Use in Patient Cohort Logic:  AND NOT
Default PATIENT COHORT LOGIC to see if the Reminder applies to a patient:
     (SEX)&(AGE)&FI(3)&'FI(6)&'FI(7)
Expanded Patient Cohort Logic:
     (SEX)&(AGE)&FI(VA-RACE)&'FI(PROSTATE CA)&'FI(PREVENTION CARE INDEX)
Default RESOLUTION LOGIC defines findings which can resolve the Reminder:
     FI(2)&FI(4)!FI(5)
Expanded Resolution Logic:
     FI(LIFE EXPECTANCY < 6 MONTHS)&FI(PROSTATE CA EDUCATION)!
     FI(PROSTATE SPECIFIC AG(PSA))
```

**A:** Take the computed finding for race out of the cohort logic. Also, in the resolution logic, use OR instead of AND.

Replace `FI(2)&FI(4)!FI(5)`
With `FI(2)!FI(4)!FI(5)`

**Q:** Has anyone created a PPD reminder that picks up LTC patients and employees in the cohort logic? I'm guessing that I will need computed findings created for each category. Does anyone have these?

**A:** We have used a computed finding to identify the patients in long-term care. Note, however, that the way Hines has identified their long-term care patients, we are only able to reliably do this by specific ward names. This means that while the methods will work for you, the particulars of the computed finding will need to be re-programmed for your site's LTC ward names, or some other mechanism.

Techie section:
"ECC" and "RCF" are the names of our long term WARD LOCATIONS. Other sites may be able to use treating specialty or other designation to uniquely identify a LTC patient.

```
NHCU(DFN,TEST,DATE,VALUE,TEXT)  ;;LOCAL TO HINES - IS PATIENT IN NHCU?
```

```
N VAIN
D INP^VADPT
S TEST=0,DATE=DT
I $P(VAIN(4),"^",2)["ECC" S TEST=1
I $P(VAIN(4),"^",2)["RCF" S TEST=1
Q
```

**A2:** We have a computed finding to find employees, which starts out in the PATIENT file, then uses the SSN x-ref to jump over to the new person file and paid employee file. We exclude certain factors from the entries in the last two files until we have active employees who are not med students or contract employees. The reminders come due on these employees during their birth month and remain due until a PPD has been done.

Then we generate a mail message to a chief's mailgroup on the first of each month which lists, by service, the employees who have BD's that month. Additionally, we generate an individual bulletin to each employee on the list reminding them of PPD due.

**Q:** We are having a problem at our facility with diabetic reminders showing up on patients who do not have diabetes. A little research has shown that the reminder is working correctly, but an incorrect diagnosis had been entered into the patient's record in the past. I found one case where the patient had an elevated glucose level and the provider had diagnosed borderline diabetes. Either the provider checked diabetes on the encounter form or a coder had used a diabetes code incorrectly.

How are other facilities handling this problem?

**A1**: The fastest solution I've heard of is to create a Health Factor for "past diagnosis of diabetes not applicable", and then use it in the patient cohort logic to skip any patient for whom that HF has been recorded.

2) On a case-by-case basis. When the provider who marked the encounter form or problem list is contacted to determine if the diabetes designation was in error, the problem list or specific encounter is edited as appropriate. As billing may be involved, MCCF is, also, contacted.

3) We send the problems to a coding mail group. They follow and make any need corrections to the encounter.

4) We use a health factor, INACTIVATE DIABETIC REMINDERS, to get around this problem.

5) Tampa uses:
1. Diabetes Taxonomy that only uses outpatient and problem list codes to define the cohort (to eliminate errors from Inpatient coding)

```
DIABETES CODES - OUTPT     Diabetes- Outpt codes

  General Taxonomy Data
  NAME: DIABETES CODES - OUTPT
```

```
BRIEF DESCRIPTION: Diabetes- Outpt codes
PATIENT DATA SOURCE: EN,PL//
USE INACTIVE PROBLEMS:
INACTIVE FLAG:

ICD0 Range of Coded Values
Select ICD0 LOW CODED VALUE:

ICD9 Range of Coded Values
Select ICD9 LOW CODED VALUE: 250.00//
  ICD9 LOW CODED VALUE: 250.00//
  ICD9 HIGH CODED VALUE: 250.93//
```

2. Health Factor: INACTIVATE DIABETES REMINDERS.
(effective period set at 6M for this finding in the reminder)

3. Reminder Dialog with instructions to contact coder for database correction. If the database is not corrected, the 6M effective period for the finding item INACTIVATE DIABETES REMINDERS expires and the diabetes reminders will again appear.

6) If you enter something into the effective date in the taxonomy finding field it should correct this problem. We use 1 year or 6 months and it seems to be working fine.

7) When we find problems with wrong diagnosis or codes entered either the CAC, one of the physicians or the RNP who assist with the Clinical Reminders will make the correction to the code. We are very fortunate here because the RNP that assist us has years of experience with the coding process. Her name is Vickie Ramsey, I'm sure she would be of great assistance to you if needed.

9) Two ways to deal with it (in addition to improving quality of data capture):
1. Have identification of diabetics depend upon drugs and diagnoses in Problem List and Discharge Diagnoses (I distributed the example in a message in Forum (Subj: A1C reminder with edited cohort logic 12 Dec 00 12:48 207 lines). I believe the reminder is now working, although we had to edit the logic to identify the cohort with any of four taxonomies (either insulin -or- oral hypoglycemics -or- diagnosis in either Problem List -or- PTF Discharge Diagnosis.

Customized PATIENT COHORT LOGIC to see if the Reminder applies to a patient:
(SEX)&(AGE)&'FI(7)&(FI(8)!FI(16)!FI(13)!FI(15)!FI(12))

2. Capture "NOT DIABETIC" Health Factor to ignore diagnoses and tweak effective periods.

I favor the first and getting clinicians to clean up Problem List.

We have the electronic problem lists on line (for almost 2 yrs) and I set the reminder to only look at problem lists and the ptf file. Usually the incorrect dx was being put in from the encounter form or by clerks during checkout

**Q:** I need confirmation on a question that arose in a meeting today.

From what I reviewed in the Women's Health (WV) technical manual, it appears that it does not interface with TIU or Clinical Reminders as far as exporting any entries made into the WV files. If anyone who knows definitively, can you respond with a yes or no that info could be extracted from the WV pkg to PXRM or TIU pkgs?

**A:** Several sites have created MST reminders and dialogs. Check the Reminders web site:

**Q:** Can anyone send me examples of their GAF and AIMS reminders and dialogs?

**A:** See the following web sites:

There are some examples posted on the Mental Health Reminders page & links:
http://vaww.mentalhealth.med.va.gov/
http://vaww.visn1.med.va.gov/pce/
http://152.131.71.182/CPRSPage/VISN15REMINDERS/screensofdialogs

**Q:** Has anyone figured out a way to set up a clinical reminder so that it keeps coming up until it has been done 3x in a one year period? This is the EPRP requirement for tobacco cessation counseling. We could set it for every 3-4 months but the patient could potentially come in 2x in a month and then not again for a year....Thanks in advance for any ideas.

**A:** I made four separate reminders. The reason for 4 was that the requirement is the next 3 visits. I feel it would be wrong to not counsel the patient with the screening, thus that is the first time and the next 3 would satisfy the requirement.

**A2:** We made three health factors: tobacco counseling 1, tobacco counseling 2, and tobacco counseling 3. Resolution logic is (1&2&3).

**A3:** Ours is set up so that it is always due for patients who continue to smoke or have recently quit. That way, the patient will be asked about tobacco use and offered enrollment in a cessation program if still using, or encouraged to remain abstinent if they have quit. Hopefully with more encouragement, we will be more successful.

**Q:** Has anyone else seen these things happen with clinical reminders:

1.After the reminder is acted on, and the nurse is exiting the progress note by going to File, Review/Sign Changes, a box pops up asking the nurse to sign orders consisting of the health factor that was entered via the reminder. This does not happen if the nurse exits the note by going toAction, Sign note now.

2. When the nurse clicks on the reminder after starting a new note, a box pops up asking for the primary provider for the encounter. By providing this information, the patient is checked out in

appointment management, with a status of Checked out/Action Required with a check out time of whenever the nurse did the reminder and the nurse designated as the person who checked the patient out. Thus, the check out time is even before the pt saw the provider if the reminder was done at nurse intake. This also adds a few steps for the person who actually checks the patient out at the very end of the appt.

**A:** This is a known problem, hoping to get it fixed in CPRS GUI v15.

**A2:** In Tampa, clerks use Appointment Manager to check out patients. We implemented reminder dialogs in late August and noted this problem. Although we still occasionally have the problem, here's how we handled it.

The administrative assistant in Primary Care sent the following instructions the clerks how to handle this:
The nurses are now entering the preventive screening via reminder dialogs on the patients they are screening. When they do this, they have to say whether they are the primary provider for that visit. If it's a Nursing Int. visit they will say YES. If it's a PCC visit they will say NO and then they have to indicate who the primary provider is for that visit. When they do this, it plugs the provider's name in as the primary provider on the check-out screen. Therefore, when you check out the patient it will show that the patient has already been "checked-out" but Action Required. The only thing that's been entered, however, is the primary provider's name, plus the time of check-out (which is actually the time the patient was screened).

What you need to do is to enter CO for Check-out and then enter IN for Interview which will take you through all the check-out screens. At the check-out date and time enter N for Now so it will change the time to the actual check-out time (don't leave the original time in because that was actually the screening time before the patient saw the doctor). The primary provider's name will already be in there. Make all the other entries as you usually do. You will probably have to type in MA for Make Appointment.

Even with occasional lost health factors, the text of the note still remains and you still come out ahead. When the nurses note that a reminder is unresolved even though the text indicates it should be, the nurses let me know. The problem is reported to the clerks supervisor and the missing HF/Ed is added to PCE based on the visible text from the dialog.

Q: can you say a little more on the lost health factors problem...why does this happen and how can it be prevented. I very much appreciate your help.

A: Here are screen captures from PCE and appointment manager. (Remember: if your clerks are using Appointment manager to check out, they can't "see" health factors, exams and education.) 18:19 is the time that the User clicks the primary provider prompt after they have clicked on a reminder dialog to process.

```
DEMO,DELORES    000-00-0113            Clinic:  All
 Date range:  1/27/2001 to 2/27/2001     Total Appointment Profile
```

```
                    * - New GAF Score Required
      Clinic          Appt Date/Time       Status
  1   Pcc-a-corrigan  Feb 26, 2001 17:00   Action Req/Checked Out 18:19



PCE Update Encounter          Feb 26, 2001@18:19:55          Page:1 of 1
DEMO,DELORES    000-00-0113            Clinic:  PCC-A-CORRIGAN
Encounter Date  2/26/2001  17:00       Clinic Stop:  323  PRIMARY
CARE/MEDICINE


1 Encounter Date and Time:  FEB 26, 2001@17:00
2 Provider:  CORRIGAN,KATHRYN C   PRIMARY   Physician/Physician/Ost
3 Education Topic:  VA-SMOKING CESSATION
4 Education Topic:  OFFERED REFERRAL SMOKE CESSATION PGM
5 Health Factor:  NO BARRIERS TO LEARNING
6 Health Factor:  PATIENT READY TO LEARN
7 Health Factor:  COMPLETE UNDERSTANDING/DEMONSTRATION
8 Health Factor:  PATIENT DECLINES REFERRAL
9 Health Factor:  EDUCATION RECIPIENT-PATIENT
------------------------------------------------------------------
ED  Edit an Item          TR  Treatment         DD  Display Detail
DE  Delete an Item        IM  Immunization      DB  Display Brief
EN  Encounter             PE  Patient Ed        IN  Check Out Interview
PR  Provider              ST  Skin Test         QU  Quit
DX  Diagnosis (ICD 9)     XA  Exam
CP  CPT (Procedure)       HF  Health Factors
```

**The clerk uses Appointment Manager to check out:**

```
Appt Mgt Module               Feb 26, 2001@18:27:08        Page:1 of 1
Patient: DEMO,DELORES (0113)           MT: REQ        Outpatient LMT:1/
Total Appointment Profile  * - New GAF Required  02/25/01 thru 11/22/03

      Clinic          Appt Date/Time       Status
  1   Pcc-a-corrigan  Feb 26, 2001 17:00   Action Req/Checked Out 18:19


        Enter ?? for more actions
------------------------------------------------------------------------
CI  Check In              CL  Change Clinic         PR  Provider Update
UN  Unscheduled Visit     CD  Change Date Range     DX  Diagnosis Update
MA  Make Appointment      EP  Expand Entry          DE  Delete Check Out
CA  Cancel Appointment    AE  Add/Edit              CP  Procedure Update
NS  No Show               RT  Record Tracking       PC  PC Assign or Una
DC  Discharge Clinic      PD  Patient Demographics  TI  Display Team Inf
AL  Appointment Lists     CO  Check Out
PT  Change Patient        EC  Edit Classification
Select Action: Quit//CO


Check Out                     Feb 26, 2001@18:27:54      Page: 1 of 2
Patient: DEMO,DELORES (0113)                      Clinic: PCC-A-CORRIG
Appointment Date/Time: Feb 26, 2001 17:00            Checked Out: NO

   CLASSIFICATION    [Not Required]
1      Treatment for SC Condition: Not Applicable
```

```
2           Agent Orange Exposure: Not Applicable
3      Ionizing Radiation Exposure: Not Applicable
4       Environmental Contaminants: Not Applicable
5           Military Sexual Trauma: Not Applicable

    PROVIDER    [Required]                 DIAGNOSIS    [Required]
1  CORRIGAN,KATHRYN C
                +         Enter ?? for more actions
-------------------------------------------------------------------
CD  Check Out Date    EC  Edit Classification   PD  Patient Demographics
AP  Appointment       PR  Provider Update       RT  Record Tracking
DC  Discharge Clinic  DX  Diagnosis Update      CP  Procedure Update
AE  Add/Edit          IN  Interview             GF  (GAF Score)
Select Action: Next Screen// DE   Delete Check Out

  1   Pcc-a-corrigan  Feb 26, 2001 17:00   Action Req/Checked Out 18:19
```

>>> Deleting the appointment check out will also delete any check out related information. This information may include classifications, procedures, providers and diagnoses.

```
Are you sure you want to delete the appointment check out? NO//NO
```

**Then the clerk might check to see what info has been entered. They will see that the nurse appears to have checked the patient out, but there isn't any CPT code of ICD-9 code, so they choose to delete the check-out and start the check over from the beginning with the correct time.**

```
                     *** Check Out ***
   CLASSIFICATION    [Not Required]
1      Treatment for SC Condition: Not Applicable
2           Agent Orange Exposure: Not Applicable
3      Ionizing Radiation Exposure: Not Applicable
4       Environmental Contaminants: Not Applicable
5           Military Sexual Trauma: Not Applicable

   PROVIDER    [Required]                 DIAGNOSIS    [Required]
1      CORRIGAN,KATHRYN C
2       STOP CODES    [Stop Codes Not Required / Procedures Required]
3           323  PRIMARY CARE/MEDICINE
```

**Here's what happens when you delete the check-out to put in the proper check-out time and the correct primary provider:**

```
Appt Mgt Module              Feb 26, 2001@18:36:51   Page:    1 of 1
 Patient: DEMO,DELORES (0113)          MT: REQ        Outpatient LMT:1/
 Total Appointment Profile   * - New GAF Required  02/25/01 thru 11/22/03
       Clinic          Appt Date/Time       Status
   1   Pcc-a-corrigan  Feb 26, 2001 17:00   Action Req/Checked Out 18:19

 -------------------------------------------------------------------------
        Enter ?? for more actions
 CI  Check In             CL  Change Clinic         PR  Provider Update
 UN  Unscheduled Visit    CD  Change Date Range     DX  Diagnosis Update
 MA  Make Appointment     EP  Expand Entry          DE  Delete Check Out
 CA  Cancel Appointment   AE  Add/Edit             CP  Procedure Update
```

```
  NS  No Show              RT  Record Tracking       PC  PC Assign or Unas
  DC  Discharge Clinic     PD  Patient Demographics  TI  Display Team Info
  AL  Appointment Lists    CO  Check Out
  PT  Change Patient       EC  Edit Classification
  Select Action: Quit// DE   Delete Check Out

    1   Pcc-a-corrigan  Feb 26, 2001 17:00   Action Req/Checked Out 18:19

  >>> Deleting the appointment check-out will also delete any check-out related
information.  This information may include classifications, procedures, providers,
and diagnoses.

  Are you sure you want to delete the appointment check out? NO// YES
     ...deleting Patient Education       <------------------------------
     ...deleting Providers               <------------------------------
     ...deleting Health Factors          <------------------------------
  ...SORRY, THIS MAY TAKE A FEW MOMENTS...

  >>> Deleting check out information...
     ...deleting check out date/time
  >>> done.

  Appt Mgt Module               Feb 26, 2001@18:37:55        Page 1 of 1
  Patient: DEMO,DELORES (0113)           MT: REQ        Outpatient LMT:1/
  Total Appointment Profile * - New GAF Required    02/25/01 thru 11/22/03
        Clinic          Appt Date/Time       Status
    1   Pcc-a-corrigan  Feb 26, 2001 17:00   Action Req/Checked In 17:00
```

**Here's what was left in PCE after the check-out was deleted (nothing but the check-in info):**

```
   PCE Update Encounter          Feb 26, 2001@18:39:10       Page: 1 of 1
  DEMO,DELORES    000-00-0113            Clinic:  PCC-A-CORRIGAN
  Encounter Date  2/26/2001  17:00        Clinic Stop:  323  PRIMARY
  CARE/MEDICINE
  1 Encounter Date and Time:  FEB 26, 2001@17:00
```

[Note: the HF, exams and ed that the nurse entered through the dialogs are gone. When the patient returns in one or two months, the note looks Ok, but the nurse thinks the "reminders don't work". Our clerks brought this to the attention of their supervisor because they weren't sure why the "nurses started checking out the patients" and no one notified them that they were going to do this. Some of our nurses wanted to check to be sure they were doing the reminders correctly so they double-checked their work and couldn't understand why the reminders weren't satisfied]

We educated the clerks as to what/why the nurses & providers are doing when they use the reminders and how to avoid deleting the HF/ED/Ex information from PCE. Most errors stopped. We have also seen an occasional error when the provider calls in sick but the nurse decides to go ahead and do the preventive health counseling. The clerk who knows the provider isn't here see the Action Required/Checked out but cancels this and "No shows" the patient even when the patient was here. We had to educate the clerk that the nurse provided a useful service and the Nurse is the primary provider and the V code is the reason for the visit. If the clerk "No-shows" the patient, all

the PCE entries are deleted. Again, it was a sharp nurse who brought a case to our attention, when she was trying to be sure she used the reminder correctly. A little investigation indicated the "No-show" entry.

**Q:** I have put together a reminder for CPAP/BIPAP -- they want to see the patients every year for eval of equipment, see if the patient is using the equipment correctly and also to re-evaluate the patient need for the equipment.

Two problems:

1) My finding items: For CPAP is E0601 For BIPAP - I am being told to use VA123. The problem is that I cannot enter the VA123.
2) I had it set with just the E0601 and got everyone in the data base needing the assessment. I then placed the following:
   CUSTOMIZED PATIENT COHORT LOGIC (OPTIONAL): (SEX)&'(AGE)!FI(1)
   // (SEX)&'(AGE)!FI(1) ---- I got no reminders showing
   then:
   CUSTOMIZED PATIENT COHORT LOGIC (OPTIONAL): (SEX)&(AGE)!FI(1)
   // (SEX)&(AGE)!FI(1) ---- I got everyone needing the assessment

   Does anyone have any ideas?

**A1:** Looks like the cohort was trying to find patients who have a sex, and no age or FI. Seems like that is doomed to fail..

**A2:** And the second string looks like you are looking for a cohort that has a SEX and AGE OR FI(1) - seems like that would pick up EVERYone with the right sex and age.

Q2: How would you set it up? Keep in mind that if I do not include the sex and age part it does not work.

A3: If the cohort can be defined by a specific code or finding, then the logic should be SEX & AGE & (FINDING).

**A:** We have the following two hypertension reminders -- one for pts with DX of HTN and one for diabetics. Our goal was to write a reminder that would only be resolved when the last BP measurement in VITALS was equal to or less than 130/85 for diabetics and 140/90 for patients with DX of HTN.

The problem is, now we're running reminder due reports on these and basically they're showing that NONE of the reminders was resolved. In other words, out 3150 pts, 3150 still have the reminder due--the # applicable and due are the same consistently. I find it hard to believe we haven't resolved any of them.

How do I need to change the way the reminder is written to make this not so? Is it because I make the frequency 1d?

```
REMINDER DEFINITION INQUIRY           Mar 07, 2001 8:45:39 am     Page 1
------------------------------------------------------------------------------

CTX HYPERTENSION IN DIABETES       No.  674032
-----------------------------------------

Print Name:                   Hypertension in Diabetes (P)

Related VA-* Reminder:

Reminder Dialog:              CTX DIABETES-ELEVATED BP

Priority:

Reminder Description:
    Blood pressure should be measured at each office visit for all veterans
    who have diabetes mellitus.

    This reminder is based on guidelines outlined in the VHA Handbook 1120.2
    and VHA Clinical Guidelines for Management of Patients with Diabetes
    Mellitus.

         Target Condition:  Coronary Artery Disease and Stroke.

         Target Group:  All veterans with diabetes mellitus.

         Recommendation:  Measure blood pressure at each office visit
         for all veterans who have diabetes mellitus.

Technical Description:
    This reminder is triggered by a diagnosis of diabetes mellitus and a last
    recorded blood pressure measure in the Vitals package of >130/85.  The
    reminder continues to be active as long as the last blood pressure
    measurement is >130/85.  If the patient is not diabetic, the Health
    Factor PT NOT DIABETIC will resolve the reminder for one year.


Baseline Frequency:

      Do In Advance Time Frame:  Wait until actually DUE
                  Sex Specific:
                 Ignore on N/A:
       Frequency for Age Range:


Findings:

                  Finding Item:  BLOOD PRESSURE  (FI(1)=VM(1))
                  Finding Type:  VITAL MEASUREMENT
            Match Frequency/Age:  1 day for all ages
                    Found Text:  BP check due every visit for diabetic
                                 patients with BP>130/85.
   Use in Patient Cohort Logic:  AND
                     Condition:  I ($P(V,"/",1)>130)!($P(V,"/",2)>85)

                  Finding Item:  DIABETES  (FI(2)=TX(674022))
                  Finding Type:  REMINDER TAXONOMY
                    Found Text:  History of diabetes on file.
   Use in Patient Cohort Logic:  AND
```

```
              Effective Period:  2Y

                  Finding Item:  PT NOT DIABETIC  (FI(3)=HF(674185))
                  Finding Type:  HEALTH FACTOR
       Use in Resolution Logic:  OR

General Patient Cohort Found Text:

General Patient Cohort Not Found Text:

General Resolution Found Text:

General Resolution Not Found Text:

Default PATIENT COHORT LOGIC to see if the Reminder applies to a patient:
     (SEX)&(AGE)&FI(1)&FI(2)

Expanded Patient Cohort Logic:
     (SEX)&(AGE)&FI(BLOOD PRESSURE)&FI(DIABETES)

Default RESOLUTION LOGIC defines findings that resolve the Reminder:
     FI(3)

Expanded Resolution Logic:
     FI(PT NOT DIABETIC)


Web Sites:

REMINDER DEFINITION INQUIRY           Mar 07, 2001 8:52:14 am    Page 1
------------------------------------------------------------------------------

CTX HYPERTENSION MANAGEMENT        No.  674008
-----------------------------------------

Print Name:                   Hypertension Management (P)

Related VA-* Reminder:        VA-*HYPERTENSION SCREEN

Reminder Dialog:              CTX BLOOD PRESSURE CHECK

Priority:

Reminder Description:
    This reminder is based on guidelines outlined in the VHA Handbook 1120.2
    and the VHA Pharmacologic Management of Hypertension 1996.

        Target Condition:  Cardiovascular disease and stroke.

        Target Group:  All veterans with hypertension.

        Recommendation:  Achieve blood pressure levels of less than 140/90 for
        all veterans with hypertension.

Technical Description:
    This reminder is triggered for all patients with a diagnosis of
    hypertension (see Taxonomy HYPERTENSION CODES) except those with an
    active diagnosis of diabetes (see reminder HYPERTENSION IN DIABETES
    MELLITUS) every visit when last recorded blood pressure in the Vitals
```

```
    Measurement Package is greater than 140/90.

    As long as the recorded BP remains greater than 140/90, the reminder
    remains due.  It will only be resolved when the last recorded BP is less
    than 140/90.


Baseline Frequency:

      Do In Advance Time Frame:  Wait until actually DUE
                  Sex Specific:
                 Ignore on N/A:
       Frequency for Age Range:  0Y - Not Indicated for all ages
                    Match Text:
                 No Match Text:


Findings:

                  Finding Item:  BLOOD PRESSURE  (FI(3)=VM(1))
                  Finding Type:  VITAL MEASUREMENT
           Match Frequency/Age:  1 day for all ages
                    Found Text:  Patients with DX of hypertension with
                                 BP>140/90 require BP check each visit.
   Use in Patient Cohort Logic:  AND
                     Condition:  I ($P(V,"/",1)>140)!($P(V,"/",2)>90)

                  Finding Item:  DIABETES  (FI(4)=TX(674022))
                  Finding Type:  REMINDER TAXONOMY
   Use in Patient Cohort Logic:  AND NOT
              Effective Period:  2Y

                  Finding Item:  HYPERTENSION CODES  (FI(5)=TX(674043))
                  Finding Type:  REMINDER TAXONOMY
   Use in Patient Cohort Logic:  AND
              Effective Period:  2Y

General Patient Cohort Found Text:

General Patient Cohort Not Found Text:

General Resolution Found Text:

General Resolution Not Found Text:

Default PATIENT COHORT LOGIC to see if the Reminder applies to a patient:
     (SEX)&(AGE)&FI(3)&'FI(4)&FI(5)

Expanded Patient Cohort Logic:
     (SEX)&(AGE)&FI(BLOOD PRESSURE)&'FI(DIABETES)&FI(HYPERTENSION CODES)

Default RESOLUTION LOGIC defines findings that resolve the Reminder:


Expanded Resolution Logic:



Web Sites:
```

**A:** Your reminder looks good for display of the correct information to the provider, but you need to fix your problem for the reports.

Your first reminder is due for Diabetics whose last SBP >130 or DBP >85.
The entry in the resolution logic does not do anything - if the patient's last BP is less than 131/86 then the reminder is not applicable and the resolution is not used.

So, the real question is - what is it that you want to ask/answer with a reminder report?

I use almost exactly the same reminder that you have for my reminder reports (without the resolution logic). However, the output in the report shows the same number in the applicable and due column - so I use this reminder to get the number of patients whose last BP was >140/85 and who have diabetes. I use a different reminder to know how many diabetics there are in the group and what I report is the % of diabetics whose last BP was elevated.

So for lines 3 and 9, the applicable and due are the same. 38/82 diabetics had their last BP elevated and 31/82 had their last HbA1c >8.0

```
                                          # Patients with Reminders
                                          Applicable           Due
                                          ----------           ---
1    Diabetes - Serum Creatinine                82              7
2    Diabetes - Hemoglobin A1c                  82             14
3    Diabetic with last BP>140/85               38             38
4    Diabetes - Urine Protein                   82             23
5    Diabetes - Urine Microalbumin              67             23
6    Diabetic Eye Exam                          82             78
7    Diabetic Foot Exams                        82             40
8    Proteinuria - Not on ACE                   20              6
9    Diabetic with last HbA1c >8.0              31             31
10   Lipid Profile - High Risk Patient          82             17
11   DM LDL in past year >100                   57             33

Report run on 82 patients.
```

If you wanted the applicable column to be all diabetics and the due column to be those whose BP was high or not done, you could rewrite the reminder.
cohort: sex and age and diabetes
resolution: BP <130/85

Then the reminder is due for all patients who have no BP recorded or whose last value was >=130/85. (It is possible to exclude those who have no BP in the VS if you wanted to)

# Troubleshooting

### Health Factor Errors

You can identify health factor errors because the routine is PXRMHF.

Generally there are four possible causes of errors with health factors:

1. A health factor that is a factor does not have a category.
Solution – put the factor in a category.
2. A health factor that is a category factor has been given to a patient.
Solution – remove this health factor from the patient's record.
3. There is a bad "AA" cross-reference in the V HEALTH FACTOR file.
Solution - remove the bad cross-reference.
4. There is an entry in the V HEALTH FACTOR file that points to a non-existent visit.
Solution – remove the entry.

By looking at the error trap you can usually tell which one of these it is. If the variable CAT is null then the error is one of the first two. The variable HFIND tells you which health factor it is. By looking at this health factor you can see if it is a factor missing a category or a category health factor given to a patient. If the variable IEN is null then there is a bad "AA" cross-reference. It will be ^AUPNVPED(DFN,"AA",HFIND,INVDATE,IEN). If the variable VIEN is null then V Health Factors entry points to a non-existent visit. The entry is ^AUPNVPED(IEN).

**Example:**

```
$ZE= BLDPC+17^PXRMHF:1, %DSM-E-NULLSUBSCR, Null subscript
 .. S ^XTMP(PXRMDFN,"HF",CAT,INVDATE,HFIND)=IEN_U_VIEN_U_DATE
Process ID:  20603564  (543176036)
                                                    APR 17, 2000 13:51:59

Username: SCHWARTZ                    Process Name: SCHWARTZ
UCI/VOL: [VAH,TOU]                    :
$ZA:  83                              $ZB:  13

Current $IO: _TNA22:             Current $ZIO: Host: 10.136.245.219   Port: 1881
CPU time:   3.52                      Page Faults:        496

Direct I/O:        500                Buffered I/O:       1008

$ZE= BLDPC+17^PXRMHF:1, %DSM-E-NULLSUBSCR, Null subscript

Last Global Ref: ^XTMP("PXRMDFN21542","HF","")

$ECODE=,ZNULLSUBSCR,
$ESTACK=9
$ETRAP=D ERRHDLR^PXRMERRH
$QUIT=0
etc.
```

## Appendix A: Checklist for Defining a Reminder and Dialog

- ❑ 1. Write your reminder in a narrative format.
- ❑ 2. Review national exported reminders for a prototype that closely matches your narrative.
- ❑ 3. Select a national reminder, print, and review.
- ❑ 4. Review taxonomy findings (print screen captures).
- ❑ 5. Review existing Health Factors in your local system. If new ones are needed, create them.
- ❑ 6. If the reminder is an education reminder, create A "refused" Health Factor (to be used instead of the level of understanding field as "refused." This will ensure that reports of numbers of patients receiving an education reflect those who received education and are not received because refused.)
- ❑ 7. If new taxonomies, education topics, exams, orderable items are needed, create them.
- ❑ 8. Decide if Radiology, Lab, Mental Health, Vitals, or other findings need to be included in the reminder.
- ❑ 9. Decide which findings are to be used with Cohort logic, Resolution logic, or informational (outside exams, radiology, lab, immunization, skin tests).
    - o Will orders be generated if certain health factors are positive or negative?
    - o Will diagnoses or procedures be generated for Problem List or encounter capture from this dialog?
    - o Will other additional findings need to be captured from the dialog?
- ❑ 10. Copy the national reminder, adding in additional findings.
- ❑ 11. Add or edit Dialog Parameters, if needed.
    - o Example, Health Factor Resolution Statuses
- ❑ 12. Autogenerate the dialog, using the option Reminder Dialog (DI).
- ❑ 13. Add the reminder to the CPRS Cover Sheet Reminder List.

***Checklist, cont'd***

- ❑ 14. Turn on the CPRS GUI parameter, CPRS Reminder Resolution Active.

- ❑ 15. Turn on the CPRS GUI parameter, Mental Health Dialogs Active, if needed.

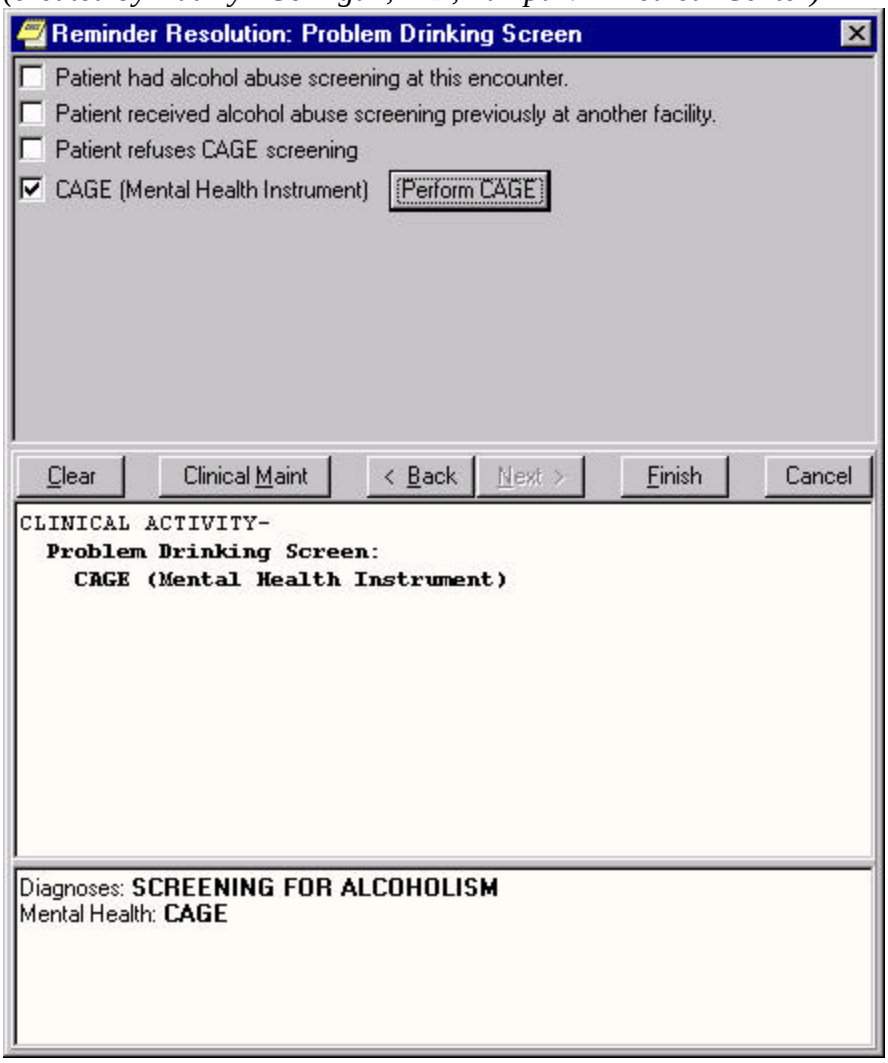
NOTE: Steps 14 and 15 only have to be turned on once, not every time a reminder definition and a dialog are created.

- ❑ 16. Test the reminder and dialog.
  - o Test in the CPRS GUI
    Does it look the way you want it to (headers, sequence, checkboxes, comments)?
  - o Check Resolution Evaluation to see if dialog elements resolve the reminder.
  - o Check Clinical Maintenance.
  - o Test in a health summary.
  - o Use the Reminders Test option to make sure there are no errors.

- ❑ 17. Fine-tune, as necessary.
  Examples:
  - o Delete the dialog element for refused Education Topic to be replaced by a Health Factor.
  - o Add the Health Factor-Refused dialog element.

**Example: Creating a Reminder and Dialog incorporating the Cage Questionnaire**

**Example: Problem Drinking Screen Reminder Dialog**
*(created by Kathryn Corrigan, MD, Tampa VA Medical Center)*




**Setup Steps**
Options for performing each step are listed. All options are on the Reminders Managers Menu [PXRM MANAGEMENT MENU].

1. Review the national exported reminders to find a prototype.
   *Option: List Reminder Definitions* on Reminder Management Menu [PXRM REMINDER MANAGEMENT]

2. Select a national reminder, VA-*PROBLEM DRINKING SCREEN. Review and print it.
   *Option: Inquire about Reminder Definition* on Reminder Management Menu

*Local Reminder incorporating Cage Questionnaire, cont'd*

4. Determine the list of findings required for the new reminder.

   a) Findings required to define the COHORT LOGIC including those than can change the age range and frequency.
   b) Findings required to define the RESOLUTION LOGIC.
   c) Informational findings.

5. Compare this list of findings with those that already exist on your system. If some of them do not exist, you will need to create them.

6. Review taxonomy findings (print screen captures).
   *Option: Inquire about Taxonomy Item* on Taxonomy Management Menu

7. Review existing Health Factors in local system. If new ones are needed, create them.
   *Option: PCE Table Maintenance* on Other Supporting Menus [PXRM OTHER SUPPORTING MENUS]

8. If the reminder is an education reminder, create "refused" Health Factors (to be used instead of the level of understanding field as "refused." This will ensure that reports of numbers of patients receiving an education reflect those who received education and not those who refused.)
   *Option: Dialog Parameters* on Dialog Management Menu [PXRM DIALOG MANAGEMENT]

9. If new taxonomies or findings (education topics, exams, orderable items) are needed, create them.
   *Option: Dialog Parameters* on Dialog Management Menu [PXRM DIALOG MANAGEMENT]

10. Decide if Radiology, Lab, Mental Health, Vitals, or other findings need to be included in the reminder.

11. Decide which findings are to be used with Cohort logic, Resolution logic, or informational (outside exams, radiology, lab, immunization, skin tests).

    a. Are there orders that would be generated if certain health factors are positive or negative?
    b. Will diagnoses or procedures be generated for Problem List or encounter capture from this dialog?
    c. Do other additional findings need to be captured from the dialog?

12. Copy the national reminder, adding in additional findings

*Option: Copy Reminder Definition* on Reminder Management Menu [PXRM REMINDER MANAGEMENT]

For this reminder, the following findings were added:
HF- NON DRINKER AT LEAST 1 YR (FI(6)=HF(673106)) Resolution
LIGHT DRINKER (FI(7)=HF(673003)) Informational
MODERATE DRINKER (FI(8)=HF(35)) Informational

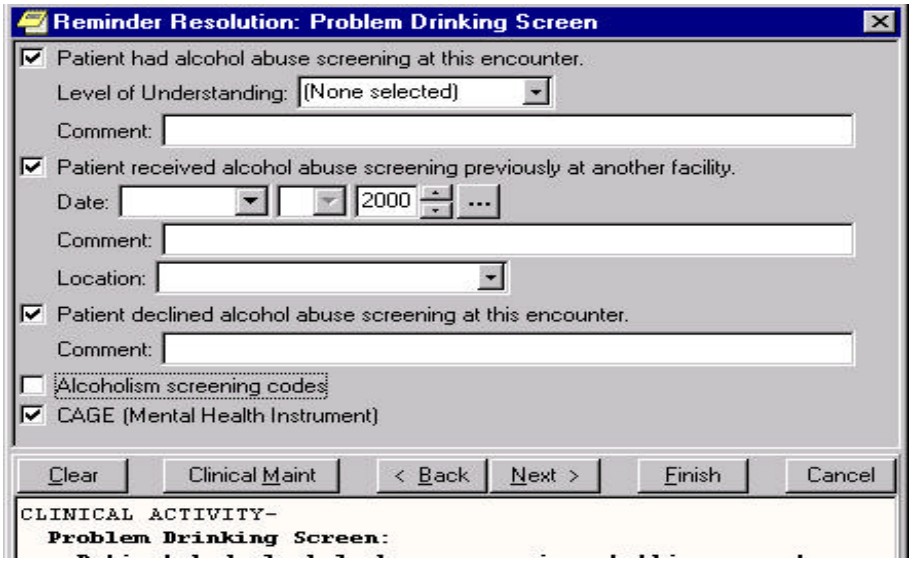
13. Set up Health Factor Resolution Statuses.
*Option: Health Factors Resolutions* on the Dialog Parameters menu on the Dialog Management Menu.

14. Autogenerate the dialog.
*Option: Reminder Dialog* on Dialog Management Menu

10. Add the reminder to the CPRS Cover Sheet Reminder List.
***Option: CPRS Cover Sheet Reminder List*** CPRS Reminders Configuration Menu

11. Check the reminder dialog in CPRS.

*Option*: Open CPRS GUI, go to Notes tab, select New Note, and open Reminders Drawer. TPA CAGE test should appear in Due or Applicable Reminders folders. Click on the reminder. The following dialog screen opens up.




12. Turn on the GUI parameter for Mental Health Dialogs Active
*Option: Mental Health Dialogs Active* on CPRS Reminders Configuration Menu

***13.*** Fine-tuning
*Option: Reminder Dialog*

13a. Add the additional finding of "V" code to the CAGE dialog element.
Select CV Change View, then select Dialog Elements.

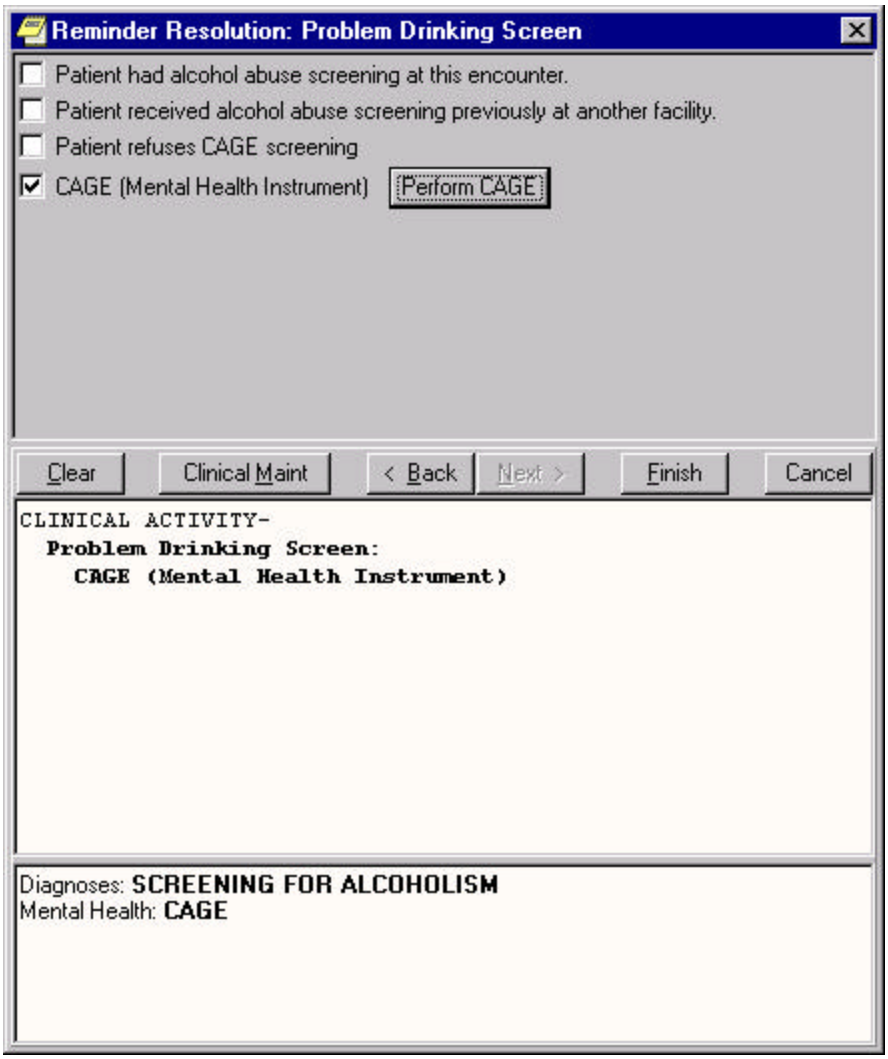
13b. Remove taxonomy, since V codes were added as additional findings to the education topic.

13c. Delete dialog for refused Education Topic, to be replaced by a Health Factor.

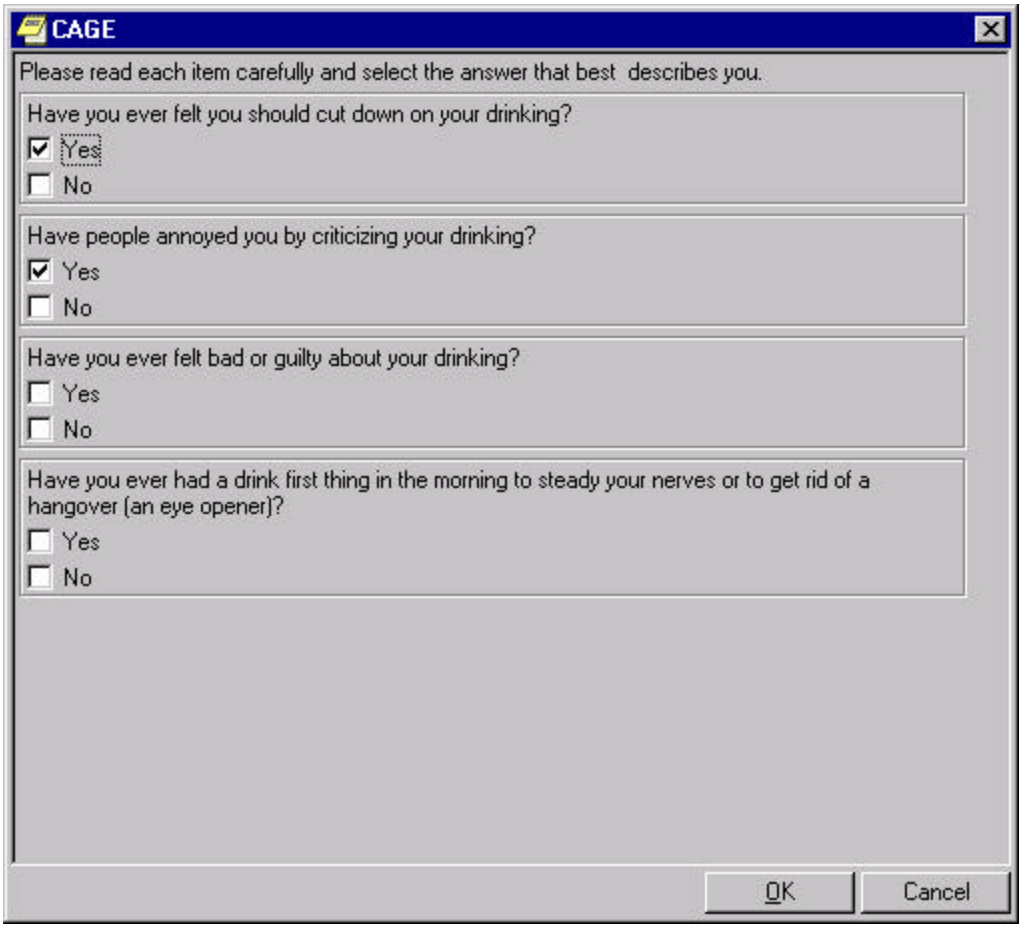
13d. Manually add Health Factor-Refused dialog element.

**Examples: Problem Drinking Screens**

Note the Perform CAGE button.

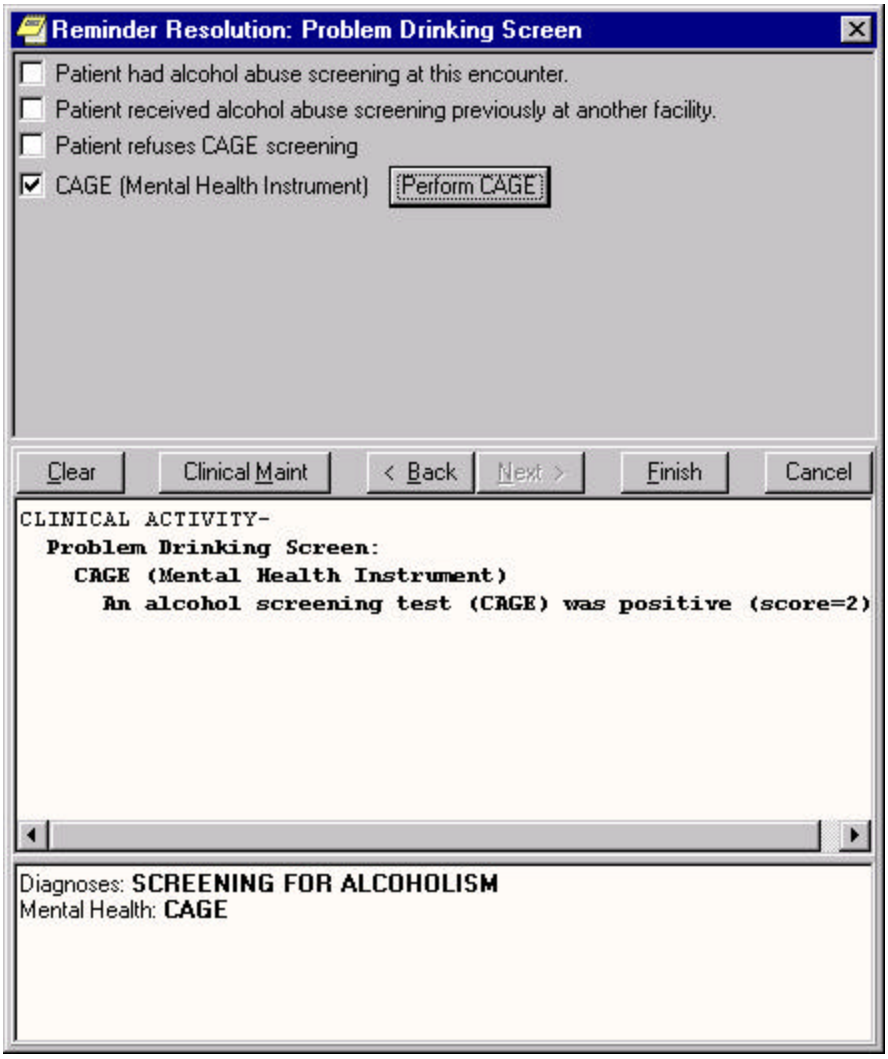


**Example: Problem Drinking Screens – CAGE test**



**Example: Problem Drinking Screens**

CAGE Results added to Progress Note



# Appendix B: Clinical Reminder Menu and Options

The options on the Clinical Reminders Management Menu help you set up and maintain Clinical Reminders.

```
   Clinical Reminders Management Menu [PXRM MANAGEMENT MEMU]
   RP      Reminder Reports ... [PXRM REMINDER REPORTS]
           D     Reminders Due Report
           T     Extract EPI Totals
         E     Extract EPI List by Finding and SSN
   RX      Reminder Exchange [PXRM REMINDER EXCHANGE]
   RM      Reminder Management ... [PXRM REMINDER MANAGEMENT]
           RL     List Reminder Definitions
           RI     Inquire about Reminder Definition
           RE     Add/Edit Reminder Definition
           RC     Copy Reminder Definition
           RA     Activate/Inactivate Reminders
   TXM     Taxonomy Management ... [PXRM TAXONOMY MANAGEMENT]
           TL     List Taxonomy Definitions
           TI     Inquire about Taxonomy Item
           TE     Edit Taxonomy Item
           TC     Copy Taxonomy Item
   TRM     Reminder Term Management ... [PXRM TERM MANAGEMENT]
           TL     List Reminder Terms
           TI     Inquire about Reminder Term
           TE     Reminder Term Edit
           TC     Copy Reminder Term
   CF      Reminder Computed Finding Management ... [PXRM CF MANAGEMENT]
           CRL    Computed Finding List
           CFE    Computed Finding Edit
   CP      CPRS Reminder Configuration [PXRM GUI MANAGEMENT]
           CA     Add/Edit Reminder Categories
           CL     CPRS Lookup Categories
           CS     CPRS Cover Sheet Reminder List
           MH     Mental Health Dialogs Active
           PN     Progress Note Headers
           RA     Reminder GUI Resolution Active
   DM      Dialog Management ... [PXRM DIALOG MANAGEMENT]
           DP     Dialog Parameters ...
           DI     Reminder Dialogs
   INFO    Reminder Information Only Menu ... [PXRM INFO]
           RL     List Reminder Definitions
           RI     Inquire about Reminder Definition
           TL     List Taxonomy Definitions
           TI     Inquire about Taxonomy Item
    OS     Other Supporting Menus ... [PXRM OTHER SUPPORTING MENUS]
           TM     PCE Table Maintenance ...
           PC     PCE Coordinator Menu ...
           HS     Health Summary Coordinator's Menu ...
           EF     Print Blank Encounter Forms ...
           QO     Enter/edit quick orders
    RT     Reminder Test
```

**Reminder Managers Menu Descriptions**

| Synonym | Option | Option Name | Description |
|---|---|---|---|
| RP | Reminder Reports | PXRM REMINDER REPORTS | This is a menu of Clinical Reminder reports that clinicians can use for summary and detailed level information about patients' reminders that are due and satisfied. |
| RX | Reminder Exchange | PXRM REMINDER EXCHANGE | This option allows sites to exchange reminder definitions via MailMan messages and host files. |
| RM | Reminder Management | PXRM REMINDER MANAGEMENT | The options on this menu are used for displaying, creating, editing, copying, and activating reminder definitions. |
| TXM | Taxonomy Management | PXRM TAXONOMY MANAGEMENT | The options on this menu are used for displaying, creating, editing, copying, and activating reminder taxonomies. |
| TRM | Reminder Term Management | PXRM TERM MANAGEMENT | Reminders can use terms as well as individual findings. The options on this menu allow you add, edit, and display reminder terms. |
| CF | Reminder Computed Finding Management | PXRM CF MANAGEMENT | The options on this menu provide tools for management of reminder computed findings. |
| CP | CPRS Reminder Configuration | PXRM CPRS CONFIGURA-TION | This menu allows for maintenance of the parameters used by CPRS for reminder processing |
| DM | Dialog Management | PXRM DIALOG MANAGEMENT | This menu contains options for setting reminders and reminder dialogs up for the CPRS GUI. |
| IN | Reminder Information Only Menu | PXRM INFO ONLY | Provides information only options for users who need information about reminders but do not need the ability to make changes. |
| OS | Other Supporting Menus | PXRM OTHER SUPPORTING MENUS | The options to maintain reminder categories are in the menu Other Supporting Menus. This menu also contains menus from other packages that are related to clinical reminders, such as PCE Table Maintenance, Health Summary Coordinator's Menu, and Encounter Forms. |
| RT | Reminder Test | PXRM TEST | This option lets you test your reminder definition before activating it, to ensure that it works correctly. |

**Recommended Menu Assignment**

| Menu | Assignment | Purpose |
|---|---|---|
| Clinical Reminders Management Menu [PXRM MANAGEMENT MENU] | • Clinical Reminders Managers<br>• Clinical Application Coordinators<br>• IRM clinical reminder support staff | Anyone who needs to define or edit reminders and dialogs. NOTE: Users who were assigned the old reminder management menu will automatically be updated to the new menu. |
| Other Supporting Menus [PXRM OTHER SUPPORTING MENUS] | • Clinical Reminders Managers<br>• Clinical Application Coordinators<br>• IRM clinical reminder support staff | This menu contains menus and options from other **V*IST*A** packages, to provide easier access to related tools for setting up and maintaining clinical reminders. Use caution in assigning these menus, as they also contain options that should only be used by coordinators of those packages. |
| Information Only Menu [PXRM INFO] | • Clinicians<br>• Quality Assurance personnel | Anyone who needs to look up (but not define or edit) reminder information |

NOTE: the Clinical Reminder Management Menu contains Other Supporting Menus, which contains the Health Summary option GMTS COORDINATOR. When making the Clinical Reminder option assignment, consider the assignment of the GMTS COORDINATOR menu option as a separate issue, leaving it or removing it from the Clinical Reminder menu as desired.

### Reminder Information Only Menu

This menu contains information-only options for users who need information about reminders, but do not need the ability to make changes. Most of the options are described previously in this manual.

| Syno-nym | Option | Option Name | Description |
|---|---|---|---|
| RL | List Reminder Definitions | PXRM DEFINITION LIST | This option provides a brief summary of selected Clinical Reminder definitions. |
| RI | Inquire about Reminder Definition | PXRM DEFINITION INQUIRY | Allows a user to display a clinical reminder definition in an easy to read format. |
| TL | List Taxonomy Definitions | PXRM TAXONOMY LIST | This option lists the current definitions of all the taxonomies defined in the REMINDER TAXONOMY file. The REMINDER TAXONOMY file is used to define a range of coded values from ICD Diagnosis codes, ICD Operation/ Procedures codes, and CPT codes that can be viewed as being part of a clinical category (taxonomy). Each entry has a low value and a high value. The software will search for matches on all the codes between the low and high values inclusive. If there is a match then the taxonomy finding will be true for the patient. |
| TI | Inquire about Taxonomy Item | PXRM TAXONOMY INQUIRY | This option provides a detailed report of a Taxonomy item's definition, with a list of the actual ICD codes that will meet the taxonomy definition from the ICD DIAGNOSIS and ICD OPERATION/ PROCEDURE files |

### Other Supporting Menus

This menu and its options are included on the Clinical Reminders Manager Menu to provide easier access to related tools from other **V*IST*A** packages for setting up and maintaining clinical reminders.

| Syno-nym | Option | Option Name | Description |
|---|---|---|---|
| TM | PCE Table Maintenance | PXTT TABLE MAINTENANCE | The options on this menu are used to add or edit the clinical terminology used to represent types of data to be collected by PCE such as Health Factors, Patient Education, Immunizations, Skin Tests, etc. |
| PC | PCE Coordinator Menu | PX PCE COORDINATOR MENU | This menu for PCE ADPACS includes all of the user interface options as well as the options for file maintenance. |
| HS | Health Summary Coordinator's Menu | GMTS COORDINATOR | This menu includes options for creating Health Summaries, Health Summary Types, and the option to set parameters for nightly batch printing of Health Summaries by Location.<br><br>**NOTE:** When making Clinical Reminder option assignments, consider the assignment of the GMTS COORDINATOR menu option as a separate issue, leaving it or removing it from the Clinical Reminder menu as desired. |
| EF | Print Blank Encounte Form | IBDF PRINT BLNK ENCOUNTER FORM | This option allows the user to select a clinic, and if an encounter form is defined for use with an embossed patient card, the form will be printed. |
| QO | Enter/edit quick orders | ORCM QUICK ORDERS | This option lets you create or change quick orders. |

# Appendix C: Creating Reminders Diagrams—Feedback Loop

**Thanks to David Reagan, MD, ACOS/AC, Mountain Home VAMC, for the diagrams on the following pages.**

**Feedback Loop: Does the Reminder Dialog help to answer the Clinical Question.**
**(Reminder Reports, User Feedback, Performance Standards, Changes in Clinical Practice)**

**How can I identify my patients who need improved glycemic control?**

## Begin with the end in mind

**What patient care issue/problem needs to be addressed?** Example: Long term complications of diabetes are dependent on glycemic control, but it's hard to keep up with glycemic control for every patient.
**What can be done about the issue?** The best single measure of glycemic control is HgbA1c, which should be checked at least annually.
**Who is at risk?** Patients with diabetes of any age or any sex.
**When should HgbA1c be ordered?** If the patient is being seen within 3 months of the HgbA1c anniversary, ordering should be considered.
**What is the role of each team member in delivering**

## Consider the tools at hand

**What tools in VISTA/CPRS can help remind a provider to accomplish annual Hemoglobin A1c screening in diabetes?**
- CPRS accesses medical information rapidly
- Types of readily available information include previous diagnoses, laboratory results, medications orderable items
- Ordering can be expedited by using quick orders for labs, consults and other items
- Information that is not usually captured can be retained using Health Factors (a type of user defined

## Technical terms and features: key definitions

**FINDINGS** are used to determine the logic that is followed in - defining patients about whom we want to be reminded (**COHORT FINDINGS**)
- locating information which shows the reminder has been taken care of (**RESOLUTION FINDINGS**)
Examples of findings include: diagnoses (**TAXONOMIES**), lab tests, medications, vital signs, or

**Clinical Reminder**

**HF 1-DIABETES HBA1C DONE AT THIS ENCOUNTER**
**HF 1-DIABETES HBA1C NON-APPLICABLE**
**HF 1-DIABETES HBA1C OUTSIDE RESULTS**
**HF 1-DIABETES HBA1C REFUSED**
**LT HEMOGLOBIN A1C**
**TX 01-Diabetes Codes**

**Select FINDING:**
**Select one of the following:**
**A All reminder details**
**G General**
**B Baseline Frequency**
**F Findings**
**L Logic**

## Define the RESOLUTION logic

Specify the FINDINGs which **RESOLVE** the reminder:
- include all medically reasonable means to resolve the reminder
- specify how long each FINDING will resolve the reminder
- specify the BOOLEAN LOGIC needed to allow the necessary FINDINGs to work together to RESOLVE the reminder
-**TEST** to be sure the reminder actually identifies patients

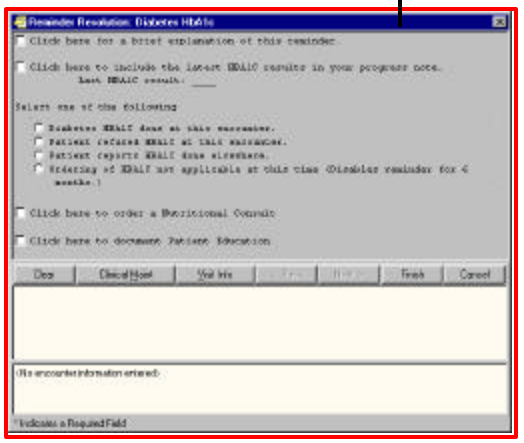
## Define the COHORT logic

Specify the FINDING(s) which define the patient cohort:
-each FINDING which is needed to define the patient cohort (e.g. taxonomy, lab item, medication, or other) have alternate age and/or sex requirements (e.g. PSA or colon cancer screening, mammography)
- Specify the logic needed to allow the necessary FINDINGS to work together to select patients (age, sex and FINDINGS controlled by **BOOLEAN LOGIC**)

## Define the baseline parameters

In order to make a reminder, you must specify each of the following:
-how long prior to the time the reminder is really due do you want to be reminded that the patient is about to need the intervention (**DUE IN ADVANCE**, e.g. 3 months )
- is the care clinical issue in this reminder age and/or sex-specific?
- how often should the patient receive the interventi
(**REMINDER FREQUENCY**, e.g. HgbA1c at least

**Reminder Dialog**



## Begin with the end in mind, part II

Key features of a good dialog:
- Resolves the reminder comprehensively & efficiently
- Intuitive (user friendly)
- Expedites medical decision making
- Guides patient education
- Presents options such as access to orders, consults…
- Facilitates thorough documentation (PCE, notes,

## Consider the formatting options

Dialog boxes have special features, including:
- **ELEMENTS** can appear in any specified order
- **RESOLUTION FINDINGS** can be grouped and tagged as required
- **OBJECTS** can pull relevant information to the dialog
- **HEADERS** can assist in navigation of the items
- Other formatting options (e.g. check boxes, radio buttons, hidden text, indentation of text, template fields…)

## Create the components of the Dialog

- Build any needed **QUICK ORDERS** (for labs, consults, etc.), OBJECTS (e.g. for HgbA1c), ELEMENTS (e.g. patient refused) and template fields.
- Create each group needed for the Dialog by associating any elements which are related

## Build the dialog

- Place each element and/or group in an intuitive sequence
-**LINK** the dialog to the reminder
-Confirm that the appearance is as desired

## Thoroughly TEST, then implement

- **TEST** the dialog box to be sure each element and group works properly
- Implement the reminder for **PILOT USERS**; then evaluate reliability, validity and ease of use

## Feedback Loop: Does the Reminder Dialog help to answer the Clinical Question?

### Begin with the end in mind

**What patient care issue/problem needs to be addressed?** Example: Long-term complications of diabetes are dependent on glycemic control, but it's hard to keep up with glycemic control for every patient.

**What can be done about the issue?** The best single measure of glycemic control is HgbA1c, which should be checked at least annually.

**Who is at risk?** Patients with diabetes of any age or any sex.

**When should HgbA1c be ordered?** If the patient is being seen within 3 months of the HgbA1c anniversary, ordering should be considered.

**What is the role of each team member in delivering the desired care?** Consider documentation, process flow… can the system be improved?

### Consider the tools at hand

**What tools in VISTA/CPRS can help remind a provider to accomplish annual Hemoglobin A1c screening in diabetes?**

- CPRS accesses medical information rapidly
- Types of readily available information include previous diagnoses, laboratory results, medications orderable items
- Ordering can be expedited by using quick orders for labs, consults and other items
- Information that is not usually captured can be retained using Health Factors (a type of user defined information field)
- Reminder Reports provide aggregate data (e.g.workload)

### Technical terms and features: key definitions

**FINDINGS** are used to determine the logic that is followed in - defining patients about whom we want to be reminded (**COHORT FINDINGS**)

- locating information which shows the reminder has been taken care of (**RESOLUTION FINDINGS**)

Examples of findings include: diagnoses (**TAXONOMIES**), lab tests, medications, vital signs, or many others

## Define the baseline parameters

In order to make a reminder, you must specify each of the following:

- How long prior to the time the reminder is really due do you want to be reminded that the patient is about to need the intervention (**DUE IN ADVANCE**, e.g. 3 months )
- Is the core clinical issue in this reminder age and/or sex-specific?
- How often should the patient receive the intervention? (**REMINDER FREQUENCY**, e.g. HgbA1c at least annually)

## Define the COHORT logic

Specify the FINDING(s) that define the patient cohort:

- Each FINDING that is needed to define the patient cohort (e.g. taxonomy, lab item, medication, or other) have alternate age and/or sex requirements (e.g. PSA or colon cancer screening, mammography)
- Specify the logic needed to allow the necessary FINDINGS to work together to select patients (age, sex and FINDINGS controlled by **BOOLEAN LOGIC**)

## Define the RESOLUTION logic

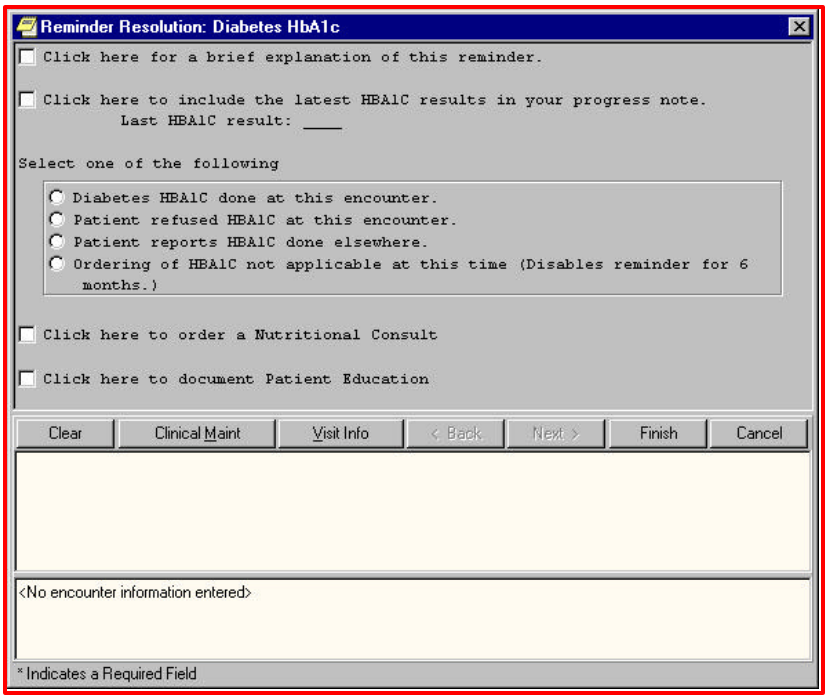
Specify the FINDINGs which **RESOLVE** the reminder:

- Include all medically reasonable means to resolve the reminder
- Specify how long each FINDING will resolve the reminder
- Specify the BOOLEAN LOGIC needed to allow the necessary FINDINGs to work together to RESOLVE the reminder
- **TEST** to be sure the reminder actually identifies patients known to have diabetes and doesn't

```
HF     1-DIABETES HBA1C DONE AT THIS ENCOUNTER
HF     1-DIABETES HBA1C NON-APPLICABLE
HF     1-DIABETES HBA1C OUTSIDE RESULTS
HF     1-DIABETES HBA1C REFUSED
LT     HEMOGLOBIN A1C
TX     01-Diabetes Codes

Select FINDING:
   Select one of the following:
        A       All reminder details
        G       General
        B       Baseline Frequency
        F       Findings
        L       Logic
        D       Reminder Dialog
        W       Web Addresses
```

# Reminder Dialog

## Begin with the end in mind, part II




### Key features of a good dialog

- Resolves the reminder comprehensively & efficiently
- Intuitive (user-friendly)
- Expedites medical decision-making
- Guides patient education
- Presents options such as access to orders, consults…
- Facilitates thorough documentation (PCE, notes, patient education)

### Consider the formatting options

Dialog boxes have special features, including:
- **ELEMENTS** can appear in any specified order
- **RESOLUTION FINDINGS** can be grouped and tagged as required
- **OBJECTS** can pull relevant information to the dialog
- **HEADERS** can assist in navigation of the items

Other formatting options (e.g. check boxes, radio buttons, hidden text, indentation of text, template fields…)

## Create the components of the Dialog

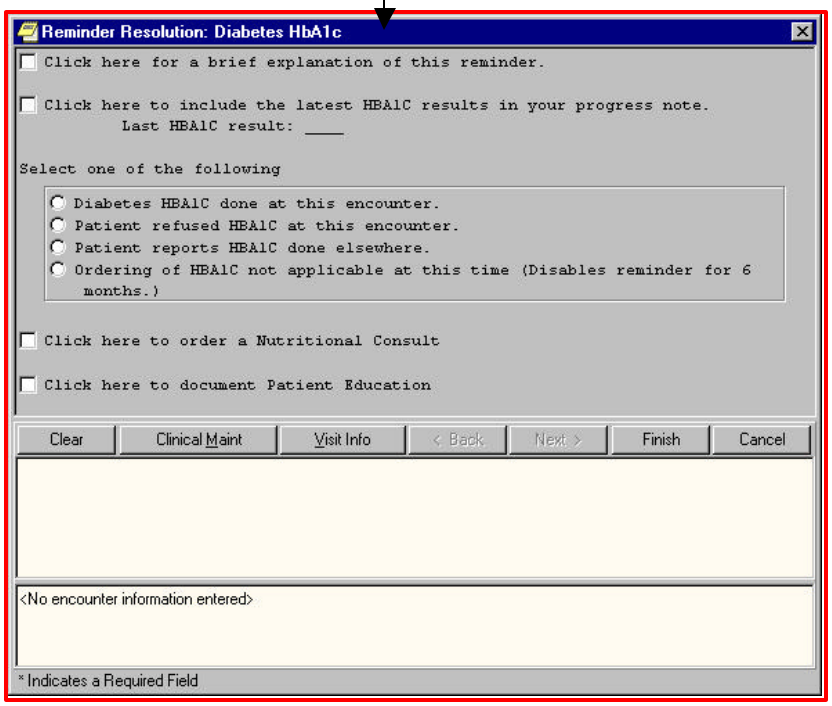
- Build any needed **QUICK ORDERS** (for labs, consults, etc.), OBJECTS (e.g. for HgbA1c), ELEMENTS (e.g. patient refused) and template fields.
- Create each group needed for the Dialog by associating any elements which are related

## Build the dialog

- Place each element and/or group in an intuitive sequence
- **LINK** the dialog to the reminder
- Confirm that the appearance is as desired

## Thoroughly TEST, then implement

- **TEST** the dialog box to be sure each element and group works properly
- Implement the reminder for **PILOT USERS**; then evaluate reliability, validity, and ease of use
- Implement the reminder for applicable users; then evaluate reliability, validity, and ease of use



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